A Case Study of the Development and Implementation of NIACC’s John Pappajohn Entrepreneurial Center

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A case study of the development and implementation of NIACC’s John Pappajohn Entrepreneurial Center

by

Kelly Lynn Jondle

A dissertation submitted to the graduate faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Apparel, Merchandising, and Design

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Iowa State University
Ames, Iowa
2017

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DEDICATION

To Macy, Elliott, & Yves

Without your incredible belief in me—and unconditional love—I could not have completed my Ph.D. You'll never know exactly how much you are loved.

I may even miss hearing you say, “Mom, work on your paper!”

Always remember that each one of you is my favorite,

and that I’ll always love you more!!

Thank you so much!

XoXoXo
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ABSTRACT

American community colleges are vital centers of educational opportunity. They are the “neighborhood schools of higher education,” as noted by community college scholar, James Palmer; they are close to home and inclusive of their communities (RCCA, 2016, p. 1). Expected to improve their local, regional, and state economies, community colleges develop and implement educational opportunities that meet the immediate and projected needs of local businesses and industry (Dougherty & Bakia, 2000; Kasper, 2003).

In 2014, the American Association of Community Colleges (AACC) reported that 45 percent of all undergraduates in the United States enrolled in a community college (AACC, 2016, p. 1). In Iowa alone, approximately one of every four Iowans—between the ages of 18 and 64—annually enrolls within a credit or non-credit community college course. During the 2014-2015 academic year (AY), Iowa’s community colleges served 138,642 credit students and 232,480 non-credit students (IADeptofEd, 2017a, p. 9), and awarded 795,235 Associate Degrees (A.A.) and 494,995 certificates (AACC, 2016, p. 2). Consequently, community colleges are viewed as major drivers of economic growth (Milliron & de los Santos, 2004), and “…fulfill a multiplicity of roles within their communities, offering a myriad of educational programs and services” (Bragg, 2001, p. 93). Community colleges provide specialized training, coursework, and educational opportunities that make them key contributors to local community and economic development efforts (Kasper, 2003).

Within this study, there is particular interest in the decisions, plans, and execution of the John Pappajohn Entrepreneurial Center (JPEC) at North Iowa Area Community College (NIACC)—respectively, the implementation of the center. Through a case study method, seven people were interviewed with an eye to understanding the development, continued efforts, and best practices
of NIACC’s JPEC. This qualitative approach captured the perspective of the key professionals who played an active role in the development of the JPEC at NIACC, allowing for richness of each participant’s experiences.

A case study of a single site interviewing multiple individuals was utilized. The purpose was to speak with key participants involved in the NIACC JPEC development. Specific research questions (RQ) addressed: how and why the center was formed, identification of what the necessary components for implementation were, determination of what considerations are necessary for its continuation, what obstacles are associated with entrepreneurship center (EC) implementation within community colleges, and what are the unique aspects of community college ECs. I utilized an exploratory case study approach that allowed the researcher the opportunity to identify the development, implementation, and organizational workings of NIACC’s John Pappajohn Entrepreneurial Center—in its real-world context.

Through theme analysis of the recorded and transcribed interview transcripts, eight primary themes were identified, including: JPEC Beginnings, Structure, Education, Leadership, Measuring Success, Community Involvement, Obstacles, and Uniqueness. This information may be helpful to Iowa’s additional 14 community colleges, as well as those beyond the state of Iowa, to provide guidance throughout the process of entrepreneurial center development.
CHAPTER I. INTRODUCTION

Overview

In 2014 to 2015, the United States had a total of 4,207 colleges and universities, of which 1,604 or 38.1 percent were community colleges and 2,603 or 61.9 percent were public four-year institutions (Kena et al., 2016, p. xxviii). Of the 17.29 million undergraduate students enrolled during the fall 2014 semester, 6.71 million or nearly 40 percent were enrolled within a community college (Kena et al., 2016, p. xxviii). Recognizing the importance of their role as community educators and leaders, Iowa’s 15 community colleges have made learning, achievement, and performance a priority for all students with the goal for them to successfully enter or reenter the workforce.

For the 2014 to 2015 academic year, Iowa’s community colleges served 138,642 credit students and 232,480 non-credit students (IADeptofEd, 2017a, p. 9). As identified by the Iowa Association of Community College Trustees (IACCT), “they [community colleges] are the workforce trainer of Iowa, offering a wide variety of short-term and long-term credit and non-credit programs or courses to meet the needs of business and education in their local communities, serving nearly 21 percent of Iowa’s working population” (ICCC, 2015, p. 1). The IACCT projects that this percentage will increase through 2018, given that seven out of Iowa’s top 10 fastest growing occupations require an education beyond high school (Dolan, 2012, p. 1).

Furthermore, with 81.8 percent of Iowa’s community college students remaining in Iowa after graduation, either entering the workforce (39.6%), or continuing their education (42.2%), enrichment of Iowa’s community college system ultimately enhances the state of Iowa (IADeptofEd, 2016, p. 25). In 2014-2015, Iowa’s community colleges and students contributed $5.4 billion in income to the state’s economy, which also contributed to the creation of 107,170
jobs in Iowa (IADeptofEd, 2017a, p. 40). As stated by Mick Starcevich, President of Kirkwood Community College and Chair of the Iowa Association of Community College Presidents (IACCP), “Money invested in Iowa’s community colleges pays big dividends, not only in increased skills for Iowa’s workforce, but in advancing Iowa’s economy” (Dolan, 2012, p. 1).

**Purpose of the Study**

This study examined the John Pappajohn Entrepreneurial Center (JPEC) at North Iowa Area Community College (NIACC) in Mason City, Iowa, with particular interest in the decisions, plans, and execution of the Center’s implementation and continuation. NIACC is the only community college to have its own entrepreneurial center amongst Iowa’s 15 community colleges (see Figure 1.1). Using qualitative methods, I interviewed key informants involved in the development of the JPEC at NIACC. An outcome of the analysis of this data is the development of a general framework and implementation considerations useful to other community colleges in their establishment of an EC.

The significance of this study lies in a key initiative of the American Association of Community Colleges (AACC): new and continued partnerships between community colleges and local industries to enhance the offerings of community colleges. One way to achieve this goal is to understand the development of the JPEC at NIACC, which is currently the only entrepreneurship center within a community college in Iowa. The results of this study, as well as important considerations for the formation of an entrepreneurship center at a community college, may be helpful to Iowa’s additional 14 community colleges, as well as those beyond the state of Iowa. The resulting general framework may prove as an important starting point for the collaborative efforts of administrators, investors, and community partners, to meet the needs of each institution.
Rationale for Study

Similar to the research conducted by Bowers, Bowers, & Ivan (2006), this study provides “implications for [entrepreneurship] centers in development or early in their operations” (p. 2). However, unlike previous research that primarily focused on entrepreneurial centers within four-year and graduate-degree granting institutions, the interest of the researcher in this study is on the structure and functioning of an entrepreneurial center within a community college. Therefore, the focus of this single-case study was the John Pappajohn Entrepreneurial Center at NIACC—the only JPEC within a community college in Iowa.

Qualitative Case Study

The purpose of qualitative research is to understand and explain participant meaning (Morrow & Smith, 2000). More specifically, Creswell (1998) defined qualitative research as,

An inquiry process of understanding, based upon distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic
picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting (p. 15).

Utilizing the method of grounded theory, I conducted interviews and identified the resulting themes collaboratively with Dr. Sara Marcketti, to develop an explanation or theoretical foundation regarding the participants’ experiences. Through the use of a narrative approach, I conducted seven in-depth interviews that allowed for the development of a narrative—or story.

**Research Questions**

In this study, I utilized a case study of a single site interviewing multiple individuals. The purpose was to speak with key participants involved in the JPEC development at NIACC. The study’s research questions were developed following my exploratory visit to NIACC’s JPEC, and reflect my interest in the development and implementation of that specific Center. The following research questions provided guidance for this study:

RQ1. *How and why* was the JPEC at NIACC established?

RQ2. *What* were the necessary components for implementation of the JPEC?

RQ3. *What* are the necessary considerations for continuation of the JPEC?

RQ4. *What* are the obstacles associated with EC implementation at a community college?

RQ5. *What* are the unique aspects of an EC within a community college?

As one of the earliest definitions of case study, Schramm (1971) stated that its primary focus is on decision-making, with Yin (1984; 2014) later adding that the focus of such decisions may include: organizations, processes, programs, institutions, and events. Denzin and Lincoln (1998) further explained that the term ‘case study’ is used “because it draws attention to the question of what specifically can be learned from a single case” (p. 86). Case studies may be specific to one individual and one setting or include multiple individuals and multiple settings. Within case study research, the researcher identifies the boundaries of what is of interest in
answering their research questions (Stake, 1995). I utilized an exploratory case study approach focused on multiple individuals within one setting to identify the development, implementation, and organizational workings of NIACC’s John Pappajohn Entrepreneurial Center in its real-world context.

**Assumptions and Limitations of Study**

The researcher focused the case study on one community college and its entrepreneurial center, making the findings context-specific. Any college that interprets the proposed general framework from this study will need to be considerate of its contextual aspects. Additionally, interviewees’ responses may present bias, given their direct involvement with and advocacy for entrepreneurial development. In consideration of the variety of participants’ involvement with programmatic development and initiatives, those selected for interviews may have limited knowledge of all aspects of the JPEC’s development.

As stated by Tim Putnam, Director of the JPEC at NIACC, “No two [entrepreneurial centers] should be alike” (T. Putnam, personal communication, May 4, 2015). In order to meet the needs of each campus and community, administrators and faculty must understand that entrepreneurship center implementation and formation do not follow a one-size-fits-all format. Each community college will have unique considerations regarding the campus environment and surrounding community and will need to develop and adapt their entrepreneurship center to meet the specific needs of their campus and community. Although the JPEC at NIACC presents one approach to the development and implementation of an entrepreneurship center at a community college, each campus will have unique developments and considerations in order to meet the specific needs of its region.
Organization of Study

This dissertation is comprised of five chapters and supporting appendices. Chapter I provides a brief introduction to the study’s rationale and support for the qualitative case study approach, statement of the problem, and the guiding research questions. Chapter II presents a review of the literature, primarily focused within the areas of community colleges, entrepreneurial centers, community and workforce development, and the JPEC at NIACC. Chapter III describes the research methods, including selection of the case and participants, data collection strategies, means of data analysis, trustworthiness, and researcher positionality. In Chapter IV, I discuss the findings of the case study, using thick description to present the emergent themes. The final chapter includes a discussion of the study’s results, limitations, implications for theory and practice, and suggestions for future research. The appendices provide supporting documentation, such as: Institutional Review Board (IRB) documentation, recruitment procedures, informed consent, participation expectations, data collection protocol, guiding research questions, Iowa’s community college directory, and JPEC-specific materials.

Definition of Terms

For the purpose of this study, the following terms have been operationally defined:

- Two-year institution – any postsecondary institution that offers programs of at least two years’ duration, but less than four years, as well as occupational and vocational schools with programs of at least 1,800 hours, and institutions with programs less than four years (Ginder, Kelly-Reid, & Mann, 2016, p. B-1)

- Four-year institution – any postsecondary institution that offers programs of at least four years’ duration or one that offers programs at or above the baccalaureate level, as well as schools that offer post baccalaureate certificates or offer graduate programs only (Ginder, Kelly-Reid, & Mann, 2016, p. B-1)
• Academic year – 12-month period that begins with the first day of the fall term for a community college and continues through the day preceding the start of the next fall term as indicated in the community college’s official calendar

• Administration – all expenses of the Community College Board of Trustees, the CEO, and business office, which serve the entire community college

• Associate’s Degree – an award that normally requires at least two but less than four years of full-time-equivalent college work (Ginder, Kelly-Reid, & Mann, 2016, p. B-1)

• Bachelor’s Degree – an award (baccalaureate or equivalent) that normally requires at least four but less than five years of full-time-equivalent college-level work (Ginder, Kelly-Reid, & Mann, 2016, p. B-1)

• Career/vocational technical – all organizational units designed to provide vocational, technical, and semi-professional training

• Case study – research that tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result (Schramm, 1971); it emphasizes “decisions” as the focus, but can also include: organizations, processes, programs, institutions, and events (Yin, 1984; Yin, 2014)

• Community college – two-year institution accredited to award the Associate of Arts Degree or Associate of Applied Science Degree as its highest offering (Cohen, 1982)

• Economic development – the specialized training, college level coursework, and continuing education opportunities provided by community colleges that strengthen their local economy, and establish them as key contributors to the community’s development efforts (Kasper, 2003)
• Entrepreneurship – the process of uncovering or developing an opportunity to create value through innovation, and seizing that opportunity without regard to resources or the location of the entrepreneur—in a new or existing company (Slaughter, 1996, p. 7)

• Entrepreneurship center – (or “entrepreneurial center”); a center located within an educational institution that offers academic curriculum in entrepreneurship, external outreach activities, and faculty that perform research (dependent upon the institution) in the field of entrepreneurship (Finkle, Kuratko, & Goldsby, 2006, p. 186).

• Full-time enrollment (undergraduate) – a student who carries a minimum of 12 semester hours each semester, with the exception of the summer semester, until graduation

• Higher education – study beyond secondary school at an institution that offers programs terminating in an associate’s, baccalaureate, or higher degree (Hussar & Bailey, 2013)

• Implementation – the process of putting a decision or plan into effect; execution (Implementation, n.d.)

• Industry collaboration – strategic relationship with a business or industry that affects the success of the entrepreneurial center

• Informed consent – permission given when the subject agrees to participate in the research project after being informed of the procedures involved; the subject may withdrawal from the study at any time without undue consequence

• Methodology – the strategy and process that justifies the choice and use of specific methods, and links this choice to the desired outcomes of the research (Crotty, 1998)

• Market responsive – the actions of a labor-market responsive community college that delivers programs and services that align with and seek to anticipate the changing dynamics of the labor market it serves (MacAllum, Yoder, & Poliakoff, 2004)
• Methods – the procedures used to collect and analyze data to help answer the research questions included in a study (Crotty, 1998)

• Middle-skill careers – occupations that require more than a high school education, but less than a four-year degree

• Participant – (or “respondent”) individuals from whom the researcher obtains data, through means of personal interaction for this study

• Part-time enrollment (undergraduate) – a student enrolled for either 11 semester credits or less, or 11 quarter credits or less, or less than 24 contact hours a week each term (Hussar & Bailey, 2013)

• Postsecondary education – a formal instructional program with curriculum primarily designed for students beyond high school, including programs for academic, vocational, and continuing education (Ginder, Kelly-Reid, & Mann, 2016, p. B-2)

• Postsecondary institution – an institution that has as its sole purpose, or one of its primary missions, the provision of postsecondary education, and must be open to the public (Ginder, Kelly-Reid, & Mann, 2016, p. B-2)

• Risk – degree to which anticipated harm to the subjects of a proposed research project exceeds that which is encountered in daily life

• Small business size standard – specific size standards that determine whether a business is considered to be "small," and thus eligible for government programs and preferences; the two standards include: 1) 500 or less employees; and 2) $7.5 million or less in average annual receipts (US SBA, 2016)

• Transfer – a student who transfers to a four-year college or university after completion of a two-year degree (or those who transfer prior to two-year completion)
Acronyms

- **A.A.**: Associate of Arts Degree
- **AACC**: American Association of Community Colleges
- **A.A.S.**: Associate of Applied Science Degree
- **AMD**: Apparel, Merchandising, & Design
- **AY**: Academic Year
- **B.S.**: Bachelor of Science Degree
- **BOR**: Board of Regents
- **CC**: Community College
- **CELT**: Center for Excellence in Learning and Teaching
- **CFEE**: Center for Entrepreneurial Excellence
- **CIRAS**: Center for Industrial Research and Service
- **DMACC**: Des Moines Area Community College
- **DOE**: Department of Energy
- **EC**: Entrepreneurial Center
- **FM**: Fashion Merchandising
- **FRM**: Fashion & Retail Management
- **GEN**: Global Entrepreneurship Network
- **HE**: Higher Education
- **IACCP**: Iowa Association of Community College Presidents
- **IACCT**: Iowa Association of Community College Trustees
- **IADep'tofEd**: Iowa Department of Education
- **ICCC**: Iowa Central Community College
- IRB: Institutional Review Board
- ISU: Iowa State University
- IWD: Iowa Workforce Development
- JPEC: John Pappajohn Entrepreneurial Center
- M.Ed.: Master of Education Degree
- M.F.C.S.: Master of Family & Consumer Sciences Degree
- NACCE: National Association for Community College Entrepreneurship
- NCES: National Center for Education Statistics
- NIACC: North Iowa Area Community College
- Ph.D.: Doctor of Philosophy
- PI: Principal Investigator
- RCCA: Rural Community College Alliance
- RQ: Research Question
- SBA: Small Business Administration
- SBDC: Small Business Development Center
- UI: University of Iowa
- UNI: University of Northern Iowa
CHAPTER II. LITERATURE REVIEW

This literature review addresses the following topics, as well as related subtopics: American community colleges, Iowa’s community college system, institutional enrollment trends, Iowa’s regents’ strategic plan, influence of entrepreneurship, development of entrepreneurship centers, establishment of Iowa’s entrepreneurial centers, John and Mary Pappajohn, NIACC and the JPEC, and the theoretical foundation for this study.

American Community Colleges

Historical Background

Throughout their existence, community colleges have had various missions, including preparation of students for transfer to universities, as well as workforce development, with each component of their mission receiving varying degrees of emphasis at various times (Cohen & Brawer, 2008). Beginning in the late 1800s, William Rainey Harper, founding president of the University of Chicago, initiated the separation of the first two years of college from the second two, revolutionizing higher education (Kane & Rouse, 1999). In 1862, The Morrill Act established American land grant institutions, and placed an increased emphasis on agriculture and technology in education (Andrews & Fonseca, 1998). Years later during the 1930s, when the Great Depression resulted in a decline in university enrollment, community colleges experienced a significant increase. To meet this new demand, “emergency junior colleges” were established through the enactment of New Deal legislation, which is also credited with the first known usage of the phrase “community college” (Witt, Wattenbarger, Gollattscheck, & Suppiger, 1994).

Following World War II, the GI Bill [of Rights] was established, further increasing enrollment at community colleges, with an increased emphasis on vocational education (Cohen & Brawer, 2008). Throughout the 1970s, new community colleges were steadily being
established. However, this growth was followed by an unexpected decline in community college enrollment during the 1980s (Mellow & Heelan, 2008). In response, community colleges increased their advertising and marketing efforts, which generated a large number of part-time enrollees (Witt et al., 1994). During the 1990s, the primary role of community colleges was to prepare students for transfer to four-year, baccalaureate-granting institutions (Bragg, 2001).

Today, Iowa’s community colleges have become increasingly diverse in student population and have expanded to provide a greater variety of higher education opportunities and services (Kena et al., 2016). For the 2014-2015 academic year, 98 percent of all two-year institutions had open admissions policies in operation, as opposed to only 29 percent of all four-year institutions (Kena et al., 2016, p. 214). To implement the open-door admissions policy, community colleges offered the following: 1) assistance with skill development for success in preparatory career and college parallel programs; 2) supplementary services for disabled and disadvantaged students; and 3) support services designed to help every student succeed (IADeptofEd, 2017b). As identified by Warford and Flynn (2000), the needs of community college enrollees can be categorized into four segments: emerging workers, transitional workers, incumbent workers, and entrepreneurial workers, with “entrepreneurial workers” being defined as those who own a business and utilize a community college for education and training.

**Market Responsiveness**

To be successful, community colleges must go beyond providing academic offerings that meet current educational needs. Community colleges, per their missions and their organizational structures, tend to spend considerable time forecasting the future needs of students, industry, and the community (Mellow & Heelan, 2008; Warford & Flynn, 2000). Through the development of certificates, degrees, and educational centers that anticipate the community’s educational needs, the curriculum remains current and relevant.
Following a qualitative study involving 30 American community colleges, MacAllum et al. (2004) concluded that institutions take varying approaches in response to labor market needs, based upon each community’s unique characteristics: “In other words, one size does not fit all, and what worked yesterday, may not work tomorrow” (p. 5). As expressed by MacAllum et al. (2004), community colleges are poised to react to the marketplace,

A labor-market responsive community college delivers programs and services that align with and seek to anticipate the changing dynamics of the labor market it serves. These programs and services address the educational and workforce development needs of both employers and students as part of the college’s overall contribution to the social and economic vitality of its community (p. 5).

These future employment needs must be understood by community colleges when planning for new academic offerings and opportunities. To forecast labor market and student needs, the Iowa Workforce Development’s (IWD) Labor Market Information Division utilizes an “Industry Projections Program.” As shown in Table 2.1, Iowa’s projected employment levels from 2014 to 2024 indicate specific areas that require specialized education and training (IWD, 2016, p. 16). Given the program’s ability to make projections for specific community college regions within Iowa, the information provided by the IWD is indispensable to Iowa’s community colleges. For example, NIACC and the JPEC could isolate industry information unique to their area (Region 2) in order to meet the forecasted needs of their local workforce and community.

During the 1980s and 1990s, community colleges began to take an even more active role in economic development, with a focus on workforce education beyond vocational education. To increase their role in economic development efforts, community colleges began to provide specialized educational offerings and training (Dougherty & Bakia, 2000). Initially, the interest in
workforce education was prompted by economic changes during the 1980s, with the shift from a manufacturing-driven economy to a service- and information-driven economy (Friedel, 2008). Soon thereafter, state leaders enacted policies in support of workforce education, entertaining the assumption that a well-trained workforce would attract and retain more businesses, and positively contribute to the local economy. As state legislatures developed policy to create and retain employers, community colleges became the primary tool for economic and workforce development.

Table 2.1

Iowa's 2014-2024 major industry projections: Total wage & salary employment (IWD, 2016)

<table>
<thead>
<tr>
<th>Industry</th>
<th>2014</th>
<th>2024</th>
<th>Growth</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-employed &amp; Unpaid Salary Workers</td>
<td>143,195</td>
<td>152,435</td>
<td>9,240</td>
<td>6.5%</td>
</tr>
<tr>
<td>Natural Resources &amp; Mining</td>
<td>109,220</td>
<td>107,370</td>
<td>-1,850</td>
<td>-1.7%</td>
</tr>
<tr>
<td>Trade, Transportation, &amp; Utilities</td>
<td>319,685</td>
<td>343,425</td>
<td>23,740</td>
<td>7.4%</td>
</tr>
<tr>
<td>Construction</td>
<td>73,825</td>
<td>86,405</td>
<td>12,580</td>
<td>17.0%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>216,745</td>
<td>222,075</td>
<td>5,330</td>
<td>2.5%</td>
</tr>
<tr>
<td>Information</td>
<td>25,690</td>
<td>25,800</td>
<td>110</td>
<td>0.4%</td>
</tr>
<tr>
<td>Financial Activities</td>
<td>104,110</td>
<td>117,950</td>
<td>13,840</td>
<td>13.3%</td>
</tr>
<tr>
<td>Professional &amp; Business Services</td>
<td>136,405</td>
<td>160,050</td>
<td>23,645</td>
<td>17.3%</td>
</tr>
<tr>
<td>Educational Services</td>
<td>173,015</td>
<td>186,040</td>
<td>13,025</td>
<td>7.5%</td>
</tr>
<tr>
<td>Health Care &amp; Social Assistance</td>
<td>208,675</td>
<td>244,320</td>
<td>35,645</td>
<td>17.1%</td>
</tr>
<tr>
<td>Leisure &amp; Hospitality</td>
<td>137,520</td>
<td>150,110</td>
<td>12,590</td>
<td>9.2%</td>
</tr>
<tr>
<td>Other Services</td>
<td>62,885</td>
<td>67,140</td>
<td>4,275</td>
<td>6.8%</td>
</tr>
<tr>
<td>Government</td>
<td>84,200</td>
<td>86,170</td>
<td>1,970</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

*Total Wage & Salary Employment: 1,795,150 to 1,949,300, a change of 154,150 (8.6%).*
The activities of economic development and workforce development are often included within community college programs and services (Grubb, Badway, Bell, Bragg, & Russam, 1997). Community colleges are major drivers of economic growth (Milliron & de los Santos, 2004) and “…fulfill a multiplicity of roles within their communities, offering a myriad of educational programs and services” (Bragg, 2001, p. 93). Community colleges provide specialized training, college level coursework, and continuing education opportunities that strengthen their local economy, and establish them as key contributors to the community’s economic development efforts (Kasper, 2003). As reported by the Education Commission of the States (2002),

Community college workforce development programs further the career goals of workers, as well as the business objectives of employers. To the extent that they help local residents secure well-paying jobs and advancement of their careers, community colleges have become a force in the economic development of their communities (p. 2).

**History of Iowa’s Community Colleges**

Presently, Iowa has a statewide system of 15 community colleges that each serve a multi-county merged area representing all of Iowa’s 99 counties. The mission of Iowa’s community colleges is to provide exemplary educational and community services that meet the needs of all Iowans, while also enhancing their lives. Iowa’s community colleges have an “open-door” admission policy, which guarantees Iowans an opportunity for educational assistance and career development regardless of previous educational attainment (IADeptofEd, 2017b). Overall, the instructional missions of two-year institutions focus on “student instruction and related activities,” that often include a variety of “career-oriented programs at the certificate and Associate Degree levels, and preparing students for transfer to four-year institutions” (Kena et al., 2016, p. 212).
The development of Iowa’s community college system began with a single community college in 1918, Mason City Junior College, today known as North Iowa Area Community College. Given its success, in 1919 it was accredited by the North Central Association of Colleges and Schools. In 1920, additional junior colleges developed as part of the public school systems, which resulted in the establishment of nine public junior colleges by 1927 (IADeptofEd, 2017c).

In 1959, the Iowa Legislative Research Bureau conducted a study to determine the needs of higher education in Iowa, which led to the recommendation to establish regional community colleges. This resulted in an additional study conducted by the Iowa Department of Public Instruction to research the need to develop a statewide system of public community colleges (IADeptofEd, 2017c, p. 2). Upon completion in 1962, the final report, entitled “Education Beyond High School Age: The Community College,” proposed that Iowa’s county-based educational system be restructured into 16 area education districts, based upon existing school district boundaries. These districts provided programs and services that would complement those provided by local school districts (IADeptofEd, 2017c).

After reviewing the report, legislation was enacted in 1965 that permitted the development of a statewide system of two-year postsecondary educational institutions in Iowa, identified as “merged area schools” (IADeptofEd, 2017c, p. 3). Each of these schools were designated as either “area community colleges” or “area vocational schools” dependent upon the depth and comprehension of their offerings (see Table 2.2).

In 1966, 14 community colleges were approved and organized with the 15th community college added in 1967 (IADeptofEd, 2017c, p. 3). By 1970, all area vocational-technical high schools and junior colleges were either merged into the new community college system or discontinued. In the 1980s, the functions of community colleges expanded beyond transfer of
academic credit, vocational programs, and adult and continuing education offerings, to include workforce development responsibilities. Enacted in 1983, the Iowa Industrial New Jobs Training Act impacted the mission of Iowa’s community colleges, adding technical education to the existing foundational programs. The program addition resulted in strong working relationships and collaborations between community colleges and local businesses, which contributed to the creation of more than 126,000 jobs in Iowa between 1983 and 2005 (Colbert, 2009). As presented within the “Iowa Statewide Community College Economic Impact Report,” spending by Iowa’s community colleges and their students creates approximately 18,000 jobs each year, and generates $683.9 million in total labor income (Dolan, 2012, p. 1).

Table 2.2

Iowa districts approved as area CCs or area vocational schools, by 1967 (IADeptofEd, 2017c)

<table>
<thead>
<tr>
<th>Approved as: Area Community Colleges</th>
<th>Approved as: Area Vocational Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Iowa Area Community College</td>
<td>Northeast Iowa Community College</td>
</tr>
<tr>
<td>Iowa Lakes Community College</td>
<td>Northwest Iowa Community College</td>
</tr>
<tr>
<td>Iowa Central Community College</td>
<td>Hawkeye Community College</td>
</tr>
<tr>
<td>Iowa Valley Community College District</td>
<td>Kirkwood Community College</td>
</tr>
<tr>
<td>Eastern Iowa Community College</td>
<td>Western Iowa Tech Community College</td>
</tr>
<tr>
<td>Des Moines Area Community College</td>
<td>Iowa Western Community College</td>
</tr>
<tr>
<td>Southeastern Community College</td>
<td>Southwestern Community College</td>
</tr>
<tr>
<td></td>
<td>Indian Hills Community College</td>
</tr>
</tbody>
</table>

To reflect the broadened context of Iowa’s community college offerings, the designation of “comprehensive” was added to the description of these institutions (Colbert, 2009, p. 335). In accordance with Iowa Code 260C.1 (see Appendix A), all 15 of Iowa’s community colleges (see
Appendix B) operate today as comprehensive community colleges, offering arts and sciences, career and technical education, and adult and continuing education programs. As shown within Table 2.3, each community college has a designated main campus, as well as additional campuses throughout Iowa (except for Northwest Iowa CC), that offers a unique mix of for-credit and non-credit educational opportunities—specifically tailored to each region (IADeptofEd, 2017a, p. 7).

Table 2.3

Iowa’s CC’s AY 2014-2015: Campuses, credit & non-credit students, totals (IADeptofEd, 2017a)

<table>
<thead>
<tr>
<th>Name of CC</th>
<th># of Campuses</th>
<th>Enrollment</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># of Campuses</td>
<td># of Main Campuses</td>
<td>Additional</td>
<td>For-Credit</td>
<td>Non-Credit</td>
</tr>
<tr>
<td>Northeast Iowa</td>
<td>2</td>
<td>5</td>
<td>7,000</td>
<td>21,000</td>
<td>28,000</td>
</tr>
<tr>
<td>North Iowa Area</td>
<td>1</td>
<td>5</td>
<td>4,000</td>
<td>11,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Iowa Lakes</td>
<td>1</td>
<td>4</td>
<td>3,500</td>
<td>3,500</td>
<td>7,000</td>
</tr>
<tr>
<td>Northwest Iowa</td>
<td>1</td>
<td>0</td>
<td>2,600</td>
<td>9,600</td>
<td>12,200</td>
</tr>
<tr>
<td>Iowa Central</td>
<td>1</td>
<td>2</td>
<td>8,000</td>
<td>18,000</td>
<td>26,000</td>
</tr>
<tr>
<td>Iowa Valley</td>
<td>2</td>
<td>1</td>
<td>4,000</td>
<td>6,500</td>
<td>10,500</td>
</tr>
<tr>
<td>Hawkeye</td>
<td>1</td>
<td>4</td>
<td>8,700</td>
<td>8,700</td>
<td>17,400</td>
</tr>
<tr>
<td>Eastern Iowa</td>
<td>3</td>
<td>4</td>
<td>13,000</td>
<td>30,500</td>
<td>43,500</td>
</tr>
<tr>
<td>Kirkwood</td>
<td>1</td>
<td>11</td>
<td>20,300</td>
<td>40,800</td>
<td>61,100</td>
</tr>
<tr>
<td>Des Moines Area</td>
<td>1</td>
<td>5</td>
<td>40,000</td>
<td>22,500</td>
<td>62,500</td>
</tr>
<tr>
<td>Western Iowa Tech</td>
<td>1</td>
<td>4</td>
<td>8,400</td>
<td>15,400</td>
<td>23,800</td>
</tr>
<tr>
<td>Iowa Western</td>
<td>1</td>
<td>4</td>
<td>9,600</td>
<td>18,000</td>
<td>27,600</td>
</tr>
<tr>
<td>Southwestern</td>
<td>1</td>
<td>2</td>
<td>2,000</td>
<td>5,000</td>
<td>7,000</td>
</tr>
<tr>
<td>Indian Hills</td>
<td>1</td>
<td>1</td>
<td>6,000</td>
<td>14,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Southeastern</td>
<td>1</td>
<td>4</td>
<td>4,000</td>
<td>4,000</td>
<td>8,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19</strong></td>
<td><strong>56</strong></td>
<td><strong>141,100</strong></td>
<td><strong>228,500</strong></td>
<td><strong>369,600</strong></td>
</tr>
</tbody>
</table>
Institutional Enrollment Trends

In 2000, the total undergraduate enrollment in degree-granting postsecondary institutions was 13.2 million, which increased to 17.3 million by fall of 2014 (Kena et al. 2016, p. 100). Of those 17.3 million enrollees, 10.6 million attended four-year institutions, while 6.7 million attended two-year institutions (Kena et al., 2016, p. 104). By 2016, nearly half of all undergraduates in the United States were enrolled in a community college (AACC, 2016). Between 2014 and 2025, the enrollment for two-year institutions is projected to increase to 8.2 million (a 21% increase), while four-year enrollment is projected to increase to 11.6 million (a 10% increase) (Kena et al., 2016, p. 104). The increase in community college enrollment is largely attributed to their open-door policy and their affordability, which significantly broadened access to postsecondary education and services. Community colleges play a vital role in meeting national goals for postsecondary attainment, while maintaining their commitment to meeting the educational needs of their surrounding community.

Enrollment in Iowa Community Colleges

By 2004, one out of four college students in Iowa was enrolled within a community college (Colbert, 2009, p. 335). The Iowa Department of Education (IADeptofEd) collects enrollment information from all 15 community colleges on the 10th business day of the fall semester each year. Most recently, in the fall of 2016, Iowa’s community colleges reported a total enrollment of 91,430 students (IADeptofEd, 2017c). For the upcoming fall 2017 semester, the enrollment estimate for Iowa’s community colleges is between 87,893 and 94,871 students (IADeptofEd, 2017c, p. 109). Fields of study popular in Iowa’s community colleges, based upon student enrollment, included liberal arts and sciences, general studies, and humanities (35%); health professions and related programs (21%); and business, management, marketing, and support services (11%) (Kena et al., 2016, p. 226).
Transition to Workforce

Most recently, as reported by the Iowa Department of Education (2017c), of the 15,031 community college awards for AY 2014-2015, 7,450 (49.6%) of those recipients continued their education, while 7,581 (50.4%) of recipients entered the workforce. This is a shift from AY 2010, when 60 percent of graduates continued their education and 40 percent entered the workforce (IADeptofEd, 2016, p. 30). Over the course of four years, the number of community college graduates that immediately entered the workforce increased by more than 10 percent. Furthermore, the vast majority of Iowa’s community college graduates remain in Iowa the first year after completion (81.8%), either entering the workforce (39.6%), or continuing their education (42.2%) (IADeptofEd, 2016, p. 25). Even one year after graduation, the largest concentration of Iowa’s transfer students remained in Iowa (85%), further demonstrating the significant impact that community colleges have on their local workforce and economy (IADeptofEd, 2016, p. 28).

Impact of Community Colleges on the Students and in Iowa

From 2013 to 2014, community colleges awarded 795,235 Associate Degrees and 494,995 certificates (AACC, 2016, p. 2). Along with a broader range of employment opportunities, achieving higher levels of education also provides incremental increases in earnings (Kena et al., 2016). According to a joint study conducted by the U.S. Bureau of Labor Statistics, the U.S. Department of Labor, and the Current Population Survey, individuals who attain an Associate’s Degree, in comparison to those only receiving a high school diploma, have a higher rate of employability and receive 18.4 percent more in earnings during the first 10 years following completion (Dolan, 2012, p. 1). As reported by the American Association of Community Colleges, “The bottom line [is that] community colleges’ mission—to connect graduates with better job opportunities—is literally paying off” (Weber, 2015, p. 1).
Furthermore, American community colleges and their students significantly contribute to the economy—in 2012 they contributed more than $809 billion in income to the U.S. economy (AACC, 2016, p. 3).

**Economic Impact**

In March of 2016, Iowa Central Community College (ICCC) released a report unique to that campus, which reflected the economic impact of ICCC on the local community. The findings predicted that between 2015 and 2020, the college will have contributed approximately $900 million ($898,111,881) to the state of Iowa and its nine-county service area (Webster, Calhoun, Buena Vista, Hamilton, Humboldt, Sac, Wright, Pocahontas, and Greene). In 2014, ICCC supported 1,422 year-round jobs within its service area, paying wages and salaries totaling $46 million, and generating an overall $137 million in economic output for the area (Pilot Tribune, 2016). When asked about the study, Dr. Dan Kinney, President of ICCC, responded as follows:

> The goal of this study is to evaluate the economic impact that Iowa Central has on our nine-county service area, and the value of the services that we provide to our local, regional, and statewide communities. The findings concluded that the investments made in Iowa Central provide significant results to the economics of our region. I am glad to see that Iowa Central is one of many partners that make such an outstanding impact on our regional economy. It displays the strengths that we bring to the table in making our communities stronger and better today, but more importantly, into the future (p. 1).

Although the mission of Iowa’s community colleges may have changed throughout the years, they have maintained their focus on ensuring that students have access to an attainable, high-quality education. According to Deb Zemke, Foundation Board President at Iowa Central Community College, the foundational mission of Iowa’s community colleges is to provide “an
education that prepares them [students] for real jobs paying family-supporting wages” (ICCC, 2015, p. 1). Iowa’s community colleges uphold this mission by preparing students for transfer to a four-year institution, but also for entry into the top middle-skill careers, which require more than a high school education, but less than a four-year degree.

**Regent’s Strategic Plan**

Ultimately, Iowa’s higher education institutions all share a common focus—to enhance the quality of life in Iowa—and beyond—through education, research, and service. As expressed by David Miles, the former president of the Iowa Board of Regents, “As the needs of Iowans change, as funding sources fluctuate, and as new discoveries spark exciting opportunities, the [Iowa] Board of Regents will work to ensure that its institutions continue to serve our state, nation, and world” (BOR, 2014, p. 2).

For 2014, the Iowa Board of Regents’ strategic plan focused on three key priorities: 1) access, affordability, and student success; 2) educational excellence and impact; and 3) economic development and vitality (BOR, 2014, p. 6). Additionally, the board emphasized the continuing need for improvement in the areas of creativity, collaboration, and community (BOR, 2014). This is further illustrated within the Iowa Board of Regents’ mission, which states an expectation of “Learning that empowers excellence, research that increases innovation, service that fulfills public purpose, and civic responsibility that enhances quality of life” (BOR, 2017).

**Influence of Entrepreneurship**

In the 18th and 19th century, entrepreneurs were defined as “those persons whom employed factors of production and profited as a result” (Frederick & Long, 1989, p. 4). In 1975, entrepreneurial education became more prevalent, with colleges and universities offering “around 100 formal majors, minors, and certificates in entrepreneurship,” with 250 courses in entrepreneurship offered by 1985 (Kauffman, 2015, p. 7). By the 20th century, the definition had
narrowed to “innovators who developed new and better ways of production and marketing” (Frederick & Long, 1989, p. 4), with the idea of risk-taking being introduced. In 2008, more than 5,000 entrepreneurship courses were offered with over 400,000 students enrolled in these courses each year (Kauffman, 2015).

As early as the 1960s, entrepreneurial-focused researchers examined the operations of entrepreneurs and their impact on the economy. Katz (2003) presented a link between entrepreneurship and economic development, discussing how new businesses positively impacted the economy. Originally, “entrepreneur” was defined as a process of innovation, which later shifted to mean the establishment of a new business. Today, entrepreneurship is commonly viewed as “the process of uncovering or developing an opportunity to create value through innovation, and seizing the opportunity without regard to resources or the location of the entrepreneur—in a new or existing company” (Slaughter, 1996, p. 7).

Entrepreneurs perceive opportunities within the marketplace, and then create businesses around identified opportunities. Their efforts lead to the creation of jobs, income, and overall community sustainability. However, most entrepreneurs do not have all the necessary skills, so their success depends upon access to support services within their communities. For entrepreneurs within rural areas, such as the majority of Iowa’s community colleges, limited support services can present significant obstacles to business creation and growth. The establishment of entrepreneurial centers within regional community colleges, such as the JPEC at NIACC, would serve to encourage and support entrepreneurial efforts.

**Development of Entrepreneurship Centers**

Since the first entrepreneurship class held in 1947 (Katz, 2003), entrepreneurial activities on college and university campuses have been steadily increasing—including both curricula and infrastructure (Bowers, Bowers, & Ivan, 2006). In 2009, approximately 80 percent of all U.S.
colleges and universities offered courses related to entrepreneurship, and 70 percent of high school students intended to own their own companies (Welsh & Carraher, 2009). With this increased interest in entrepreneurship, entrepreneurial centers became more prevalent across college campuses, with the first known EC, the Caruth Institute of Owner-Managed Business, established at Southern Methodist University in 1970 (Katz, 2003). By 2006, there were 146 “collegiate entrepreneurship centers” nationwide (Welsh & Carraher, 2009, p. 26).

**National Survey of Entrepreneurship Education**

The National Entrepreneurship Education Survey provides “…an accurate picture of how entrepreneurship programs are organized and implemented” within the United States (CFEE, 2014, p. 35). According to the most recent survey published in 2014, of the 206 entrepreneurship programs surveyed, the majority of the programs were housed within an existing discipline of the institution, and typically within the business or management departments (CFEE, 2014, p. 13). For those entrepreneurship programs not housed within the business college, they existed within departments of music, environmental science, engineering, health sciences, and veterinary medicine, among others (CFEE, 2014, p. 35).

**Experiential learning opportunities.** A large number of the respondents for the National Entrepreneurship Survey indicated that “…one of the features that provides their program with a competitive advantage over others is their ability to offer experiential learning opportunities to their students,” allowing them to “…participate in real-life situations and activities outside the program” (CFEE, 2014, p. 36). It was found that students are “…eager to apply their education outside of the classroom,” and that “…students are looking to educators to provide the opportunity to participate in internships and business plan competitions, and interact with professionals and entrepreneurs through resource networks” (CFEE, 2014, p. 36).
Interdisciplinary entrepreneurship programs. Another prominent trend is the need for entrepreneurship programs to be interdisciplinary (CFEE, 2014). Although entrepreneurship programs are typically housed within an institution’s business or management department, the impact of entrepreneurial centers is experienced campus-wide, with some level of presence within all academic disciplines. For example, “…many technologies and innovations come from engineering schools, and, in the wake of the rising concerns over health care in the country, public health schools are turning to entrepreneurial activities to create innovative solutions” (CFEE, 2014, p. 37). Through the integrations of entrepreneurship education across all campus schools and majors, provides “…a more hands-on learning experience for students of the program, allowing them to work outside of the business discipline and be a part of a team with diverse backgrounds” (CFEE, 2014, p. 37).

Entrepreneurship offerings. Additionally, within entrepreneurship programs, there has been “…a shift in the course offerings, moving away from more traditional topics of franchising and venture capital, and towards topics such as new venture initiatives, business planning, technology, and innovation” (CFEE, 2014, p. 35). As indicated by the CFEE’s National Survey, between the years of 2012 and 2014, the five most popular courses offered in entrepreneurship (based upon level of enrollment) included the following: technology, entrepreneurship, venture capital, business planning, and creativity (CFEE, 2014, p. 17). Furthermore, the study reported that in addition to an increased focus on entrepreneurship-related coursework, many entrepreneurship programs have also expanded their educational opportunities (see Table 2.4), thereby reflecting a more experiential and interdisciplinary approach to education (CFEE, 2014; Rae & Wang, 2015, p. 126).
Expansion of Entrepreneurship

In 1979, there were 93 colleges and universities within the U.S. that offered some form of entrepreneurial coursework (CFEE, 2014); by 2006, this number had increased to more than 1,600 (Finkle, Kuratko, & Goldsby, 2006). Today, that interest in entrepreneurship has further expanded throughout both the business world and the academic world—internationally. “Within 50 years, the field has evolved from a single course offering, to a diverse range of educational opportunities available at more than 1,500 colleges and universities around the world,” (CFEE, 2014, p. 6).

Table 2.4
Opportunities for entrepreneurship students (Rae & Wang, 2015, p. 126)

<table>
<thead>
<tr>
<th>Opportunity</th>
<th>Yes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guest speakers focused on entrepreneurship/small businesses</td>
<td>230</td>
<td>71.4</td>
</tr>
<tr>
<td>On-site visits focused on entrepreneurship/small businesses</td>
<td>120</td>
<td>37.3</td>
</tr>
<tr>
<td>Business plan competition</td>
<td>186</td>
<td>57.8</td>
</tr>
<tr>
<td>Elevator pitch competition</td>
<td>77</td>
<td>23.9</td>
</tr>
<tr>
<td>Internships focused on entrepreneurship/small business</td>
<td>129</td>
<td>40.1</td>
</tr>
<tr>
<td>Feasibility studies</td>
<td>110</td>
<td>34.2</td>
</tr>
<tr>
<td>Community development focused on entrepreneurship/small business</td>
<td>88</td>
<td>27.3</td>
</tr>
<tr>
<td>Student club/organization focused on entrepreneurship/small business</td>
<td>150</td>
<td>46.6</td>
</tr>
<tr>
<td>Kauffman Foundation FastTrac program</td>
<td>11</td>
<td>3.4</td>
</tr>
<tr>
<td>Global entrepreneurship week events</td>
<td>78</td>
<td>24.2</td>
</tr>
</tbody>
</table>
**White House Initiative.** In 2011, President Obama launched “Startup America,” which was a “White House initiative to celebrate, inspire, and accelerate high-growth entrepreneurship throughout the Nation” (US DOE, 2016, p. 1). One of the pivotal outcomes was the growth in business accelerator programs, rising from 30 in 2009, to more than 170 in 2015. During this time, there was also greater access to capital, with venture capital investments increasing by 200 percent, and angel investments increasing by 40 percent (US DOE, 2016). This allowed for a dramatic rise in the number of business start-ups, as well as a heightened presence of entrepreneurship within communities across the U.S. Most importantly, this initiative led to the creation of 889,000 jobs in the final quarter of 2015, as a direct result of new business development; this was the largest increase in job creation since 2008 (US DOE, 2016).

**Global Entrepreneurship Week.** Further demonstrating the increased significance of entrepreneurship, Global Entrepreneurship Week is an international organization that celebrates entrepreneurship every November with a variety of entrepreneurship-related events hosted throughout the world. Through these activities—whether at the local, national, or global level—individuals are encouraged to think innovatively, and are inspired to attain their entrepreneurial goals (GEN, 2017). Participants are exposed to activities such as large competitions and events, as well as smaller-scale networking opportunities with potential collaborators, mentors, and investors. Launched in 2008, the Global Entrepreneurship Week initiative has grown to include 125 countries, with 24,008 partner organizations. As a result of these partnerships, 33,846 activities are attended worldwide by millions of participants (GEN, 2017).

**Establishment of Iowa’s Entrepreneurial Centers**

As economic conditions shift within Iowa’s communities, and the level of required education increases for workforce entry, local community colleges address these needs with
customized educational opportunities and expanded services (Jacobs & Dougherty, 2006). In 1973, only 28 percent of U.S. jobs required an education beyond a high school diploma. However, the Iowa Department of Education reported that by 2025, “about 68 percent of all jobs in Iowa will require some level of postsecondary training or education beyond high school” (IADeptofEd, 2016, p. 5).

Iowa’s economy is reflective of this trend, demonstrating an increased demand for postsecondary education and training within foundational industries. To address this need, Iowa’s Governor, Terry Branstad, set a goal for 70 percent of Iowans in the workforce to have an education or training beyond high school by 2025 (IADeptofEd, 2017a). The intended outcomes include expanded career opportunities for more Iowans, and skilled workers that meet the specialized needs of local employers. As emphasized within their missions, community colleges possess the flexibility and responsiveness to meet the lifelong learning needs of their communities, and therefore, are often designated as the educational providers for the workforce, as well as the primary drivers of each state’s economic development.

To accommodate the changing needs of today’s college students, Iowa’s community colleges have expanded their campus resources and educational offerings, providing greater exposure to varied academics and industries. Recognizing the specific need for greater access to entrepreneurial-focused resources within Iowa, John Pappajohn addressed this by implementing the first John Pappajohn Entrepreneurial Center within Iowa’s community college system.

Cohen and Brawer (2008) defined the five primary functions of community colleges as academic transfer, vocational-technical, continuing education, developmental education, and community service, emphasizing that these functions are often intertwined, and that “community college programs do not stay in neat categories” (p. 26). Furthermore, these functions often involve partnerships in order to meet the institution’s educational goals and
financial needs; most commonly, they involve collaborations across campus, as well as with community professionals and local organizations.

Such partnerships and collaborations may also be potential sources of funding, acquired through grants or donations (Hansen, 1998). On occasion, community colleges enter into more formal relationships with a business or industry to develop a program specifically designed to meet their needs. Through these partnerships, community colleges anticipate workforce needs, refine their curricula, identify potential revenue streams, and gain access to new technologies (Kisker & Carducci, 2003; Orr, 2001). These collaborations also provide students with new opportunities for job training and employment (Young, 1997), thereby positively contributing to the local economy and workforce.

Another potential source of funding is through investments by private foundations, such as the Bill & Melinda Gates Foundation and the Lumina Foundation for Education, which provide financial support for necessary campus improvements. Additionally, individual investors, such as John and Mary Pappajohn, provide valuable financial support for community college development efforts, including the implementation of the JPEC at NIACC—the only entrepreneurial center within Iowa’s community college system.

**John and Mary Pappajohn**

**Background**

Upon emigrating from Greece when only nine months old, John Pappajohn grew up in Mason City, Iowa. After the loss of his father at age 16, he worked his way through college, alternating his work and school schedule with that of his two brothers. In 1952, he received a Bachelor’s Degree in business from the University of Iowa, and soon after established an insurance agency, later becoming Chairman of the Board for Guardsman Insurance Investors. In 1969, Mr. Pappajohn organized Equity Dynamics, Inc. and Pappajohn Capital Resources in Des
Moines, Iowa, becoming one of the first venture capitalists with a “dream to make Iowa the most entrepreneurial state in America” (Pappajohn, 2017a).

In 1996, he was inducted into the Iowa Business Hall of Fame, and attributed his success to three “fabulous caring networks:” 1) his family, for their continuous support, cooperation, and sacrifice; 2) his staff, comprised of associates and special friends, “who are talented and make my work look easy;” and 3) the CEOs, presidents, and employees of the 42 companies within his venture-capital portfolio, stating that “they make me look smart” (Pappajohn, 2017a). Mr. Pappajohn recognizes that the shared vision and contributions by others helped drive his success, such as the 69 percent rate-of-return on his investment portfolio—for 25 years—affording him the ability to be philanthropic (Pappajohn, 2017a).

With over 50 years of entrepreneurial experience, John Pappajohn has become a highly recognized and accomplished business leader. The numerous contributions of John and Mary Pappajohn are especially well-known throughout Iowa. However, while speaking with him, he told a story that I had not heard, regarding the beginning of his “entrepreneurial kick,” stating,

I might digress and tell you that a gentleman by the name of W. Clemmons Stone…I don’t know if whether you’ve read…that changed, changed my life. Because he was president of Combined Insurance Company of America, he flew to Mason City at the time, to speak to the Life underwriters…I happened to be president at the time. I picked him up in a Volkswagen—he didn’t like my car very much—I found out later that he had a 600 Mercedes chauffeur…that was his vehicle. But anyway, he spoke to our group, and he challenged me and said why don’t you start your own life insurance company. And I told him I didn’t have any money, and so that got me on this entrepreneurial kind of kick, and that’s how I really got started (J. Pappajohn, personal communication, January 7, 2017).
NIACC and the John Pappajohn Entrepreneurial Center

David Bass (2003) wrote that whereas many four-year institutions may be vulnerable to economic changes, community colleges have benefitted from such through greater strategic planning, increased fundraising, organizational restructuring, listening to feedback from faculty, staff, and students, and taking advantage of the institution’s local economy. In response to the economic condition and workforce needs of Mason City’s surrounding area, the John Pappajohn Entrepreneurial Center was established at NIACC.

NIACC

The NIACC campus occupies 500-acres that border Mason City, centrally located between Minneapolis and Des Moines. Its service area fully encompasses the counties of Cerro Gordo, Floyd, Franklin, Hancock, Mitchell, Winnebago, and Worth, as well as portions of Butler, Wright, Kossuth, and Chickasaw. This nine-county area spans 3,621 square miles, assessed at $4,029,001,533, and inclusive of approximately 130,000 residents who represent 58,000 households (NIACC, 2017a).

NIACC currently offers more than 40 one-year and two-year career programs, Associate Degrees within various disciplines, and a wide range of continuing education opportunities for professional and personal growth (NIACC, 2017b; NIACC, 2017c). For the 2012-2013 academic year, NIACC awarded 587 Associate Degrees and 386 certificates, and met the educational needs of 3,207 credit-seeking students. NIACC’s more than 300 faculty and staff members also provided non-credit educational opportunities and services to thousands of additional students (NIACC, 2017d).

America’s first community college was Joliet Junior College, which has grown from only six students in 1901 to more than 35,000 students today. NIACC, having been established in 1918, is Iowa’s oldest community college, and the third oldest in the country. For nearly a
century, NIACC has served as an open-admission, public institution, playing a significant role in the cultural, educational, and economic development of the North Iowa region (NIACC, 2017b).

The mission of North Iowa Area Community College is, “To enhance the quality of life for the people of North Iowa through comprehensive educational opportunities, progressive partnerships, exemplary service, and responsive leadership,” with core values of academic excellence, integrity, and community (NIACC, 2017c). In 2009, the annual Career Placement Report recognized NIACC for achieving a student placement rate of 95 percent; out of the 42 career programs that had graduates that year, 26 programs experienced a 100 percent placement rate. Furthermore, starting salaries for NIACC’s graduates remained competitive, and ranked closely with those wages associated with higher-experience-level positions (Logos, 2010).

NIACC also gained significant recognition amongst America’s 1,132+ community colleges, after making the list of “The 50 Best Community Colleges in the United States” (The Best Schools, 2016). These colleges were selected based on: sustained achievement outcomes (success, perseverance, completion); learning outcomes (engagement, experiences, areas of study); employment outcomes (rates of employment, salaries, advancement); equitable outcomes (diversity and success of low-income and underrepresented students); and cost-to-value outcomes (reasonable tuition, access to financial aid, minimal post-school debt) (The Best Schools, 2016).

**The Student Experience**

With the heightened need for postsecondary education and the increased demand for a highly skilled workforce, community colleges are called upon to expand their focus beyond large enrollment numbers, and ensure that their campus environment is designed for student success.
The Board of Regents, along with NIACC, consistently works to promote educational environments that are properly aligned with its core values (BOR, 2014).

NIACC is dedicated to providing students with a superior learning experience, as evidenced by its efforts to strengthen the following areas: organizational efficiency, top-quality service, exceptional academics, student completion and success, and financial aid opportunities (NIACC, 2016). As presented in NIACC’s “Strategic Plan 2011-2016,” the College was recognized for its continued commitment to quality teaching and learning, seamless educational opportunities, exemplary programs and services, collaborative partnerships with business and industry, and commitment to the individuals it served—locally, regionally, and internationally (NIACC, 2016, p. 1).

This focus on the student experience is shared throughout NIACC’s campus and results in the availability of various opportunities and services, including the NIACC Career and Internship Center. As noted by the Center’s Director, Terry Schumaker, “The College serves area residents by providing training opportunities for high demand careers with attractive wages, and serves our business community by developing a well-trained workforce…It is important that our skilled graduates are finding employment and staying in Iowa” (Logos, 2010). The Center’s services are open to local businesses, NIACC students, and NIACC alumni, providing access to job fairs and campus career days, assistance with selection of an academic major, development of job search skills, and proven techniques for successful interviewing. Qualified students who are seeking employment also have the opportunity to be paired with local hiring businesses through NIACC’s partnership with the IWD.

**John Pappajohn Entrepreneurial Center**

Mr. Pappajohn, given his acumen and business success, sought to help the state of Iowa and increase its economic value. His solution was to help educate and train students, along with
fellow business people, who were determined to become successful—to establish a means to “train and show them how to do it” (Pappajohn, 2017a). In 1996, he provided more than $30 million to establish five entrepreneurial centers across Iowa (see Figure 2.1), collectively known as “John Pappajohn Entrepreneurial Centers” (Pappajohn, 2017b). The exact location and contact information for each JPEC is provided within Appendix C.

In 2000, Mr. Pappajohn gave an additional $3.5 million to the business start-up centers at Iowa’s three regent universities and NIACC, with each regent institution receiving $1 million, and NIACC receiving $500,000 (Pitt, 2000, p. 1B). The next day, John Pappajohn announced “…a new $1.1 million gift, the largest single gift in the history of North Iowa Area Community College,” to be used for construction of a new “Pappajohn Business and Entrepreneurial Center” building; this required, “…the removal of the last temporary building on campus,” which had been in use for 23 years, and housed the JPEC offices (Krotz, 2000, p. 1).

Figure 2.1. Name & location of Iowa’s five John Pappajohn Entrepreneurial Centers

1. NIACC: Mason City, Iowa: Pappajohn Entrepreneurial Center
2. ISU: Ames, Iowa: Pappajohn Center for Entrepreneurship
3. UI: Iowa City, Iowa: John Pappajohn Entrepreneurial Center
4. UNI: Cedar Falls, Iowa: John Pappajohn Entrepreneurial Center
5. Drake: Des Moines, Iowa: Pappajohn Center for Entrepreneurship Outreach
Subsequently, these five JPECs have created and launched more than 1,000 new companies (Pappajohn, 2017c). Also announced in 2000, the “John & Mary Pappajohn Higher Education Center” was established in downtown Des Moines to meet the area’s need for higher education and corporate training (Blake, 2003, p. 1B; 6B). It serves as the headquarters for the Des Moines Higher Education Collaborative, comprised of: Des Moines Area Community College (DMACC), Drake University, Grand View College, Simpson College, University of Iowa (UI), University of Northern Iowa (UNI), and Iowa State University (ISU) (Pappajohn, 2017b).

Although Iowa’s five JPECs individually “…define its own mission, and serve the state in the manner consistent with its particular strengths,” each JPEC has the same overall purpose: “to enhance the effectiveness of Iowa’s entrepreneurs” (NIACC, 2017e). To this end, NIACC’s JPEC provides support and assistance to community members and students who are interested in entrepreneurship and business ownership.

However, a comparative analysis of Iowa’s five JPECs was not the purpose of this study. The focus of this study, rather, involved a single-case study of NIACC’s John Pappajohn Entrepreneurial Center—the only JPEC within a community college in Iowa. Given its successful implementation and growth since its beginning in 1997, a detailed examination of NIACC’s JPEC formation was undertook. For better understanding and to provide an overview of the selected site for this study, this section highlights the known information related to the operations of the JPEC at NIACC.

NIACC actively promotes the economic growth and development of the North Iowa region. Such efforts are evidenced through engagement and collaborations with the region’s economic development corporations, business and industry partners, regional and state organizations, and alignment with national initiatives. NIACC advocates for education,
economic vitality, and the social well-being of North Iowa residents through its involvement with Iowa-based JPECs, Iowa’s three regent universities, and local legislation.

Federal legislation, such as the Perkins Act and the School to Work Opportunities Act, emphasizes the importance of the close relationships that community colleges develop with local businesses (Brewer & Gray, 1997). Most commonly, community colleges achieve this through the formation of business advisory groups, or advisory boards, which serve a number of purposes for community colleges. Industry professionals benefit the college through external support and funding opportunities, advisement of academic programs (ensuring that the curriculum remains current), and assistance with career placement of students (Hansen, 1998).

To guide and facilitate the partnerships between NIACC’s JPEC and the surrounding community, a 20-member advisory board comprised of both administrators and industry professionals was established (see Appendix D). Overall, the Board’s role involves oversight of the performance of NIACC’s JPEC and the functions identified as essential for the fulfillment of its mission. NIACC and the JPEC are organized around these key functions and gauge their performance accordingly. Leaders of NIACC and the JPEC are expected to set and achieve high standards, while directing the operations of each essential function—with quality education being a top priority (NIACC, 2017f).

**Iowa Small Business Development Center.** To uphold the mission of the JPECs, which is to assist with business development and provide support to ensure its success, it is necessary to build strong partnerships with local businesses and professionals. These partnerships not only provide enrichment for NIACC’s course offerings, but also expand potential educational opportunities beyond the campus. For faculty, these relationships provide exposure to new teaching and learning strategies, as well as outside partnerships with educational institutions and organizations, and involvement with government agencies and corporate leaders.
For students, such partnerships provide access to valuable entrepreneurial resources, such as the Small Business Development Center (SBDC), as well as others discussed below (SBDC, 2017b).

Business owners and entrepreneurs are recognized as the driving force behind Iowa’s economic growth. Over the past five years, “America’s SBDC Iowa has worked with over 15,500 clients, helped start 1,248 businesses, and created just over 6,900 Iowa jobs,” with their clients experiencing “sales increases of over $259 million,” in addition to obtaining “over $282 million in capital” (SBDC, 2017c, p. 3). Therefore, guidance and direction provided by Iowa’s SBDCs is essential for successful development of small businesses.

Established in 1981, the mission of Iowa’s SBDCs is to positively impact the economy of the State of Iowa by providing the highest quality assistance to current and future businesses, and by collaborating with federal, state, local, and private resources to ensure maximum benefits to each client (SBDC, 2017b). To do so, the SBDCs provide free, professional business advice to entrepreneurs and small business owners (those businesses comprised of 500 employees or less) in each of Iowa’s 99 counties. As shown in Figure 2.2, there are 15 business centers located throughout Iowa, regionally-based to best meet the small business needs of all Iowans.

Figure 2.2. Iowa’s 15 SBDC regional business center locations (SBDC, 2017a)
With 97.5 percent of Iowa’s businesses categorized as small businesses, which represent 48.5 percent of Iowa’s workforce, each region’s SBDC plays a critical role in the development of the local economy (SBDC, 2017c). Each Center offers workshops related to practical skills and techniques for business development in various fields, designed to support entrepreneurs at any stage of business development (NIACC, 2017g). They also provide customized counseling and training services, ranging from new business guidance and loan proposals to business growth strategies and succession planning. As a result, business clients of Iowa’s SBDCs experience growth 3.5 times faster than comparable Iowa businesses not receiving assistance. As shown in Table 2.5, Iowa’s 15 SBDCs significantly contributed to the state’s economy and positively impacted their communities (NIACC, 2017b).

Table 2.5

2016 economic impact data for Iowa’s SBDCs (SBDC, 2017b)

<table>
<thead>
<tr>
<th></th>
<th>Combined data: 2012-2016</th>
<th>Data exclusive: 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Businesses Started</td>
<td>1,248</td>
<td>279</td>
</tr>
<tr>
<td>Jobs Created/Retained</td>
<td>6,900</td>
<td>1,689</td>
</tr>
<tr>
<td>Clients Counseled</td>
<td>21,434</td>
<td>4,442</td>
</tr>
<tr>
<td>New Capital</td>
<td>$282 million</td>
<td>$70.5 million</td>
</tr>
<tr>
<td>Sales Growth</td>
<td>$259 million</td>
<td>$69 million</td>
</tr>
</tbody>
</table>

The SBDC for NIACC’s North Iowa region opened February 4, 1985, and is currently housed within the John Pappajohn Business and Entrepreneurial Center at NIACC. The center provides counseling and consulting to local small business owners and start-up clients, in combination with on-line assistance through the SBDC website, offering documents, forms,
templates, and links to business development resources, such as workshops and seminars (NIACC, 2017g).

The collaborative approach between Iowa’s JPECs and its SBDCs results in many benefits to the state of Iowa. The primary contribution is the continued support of education and further development of Iowa’s entrepreneurs. This also leads to an increase of Iowans interested in starting a new business, diversification and growth of Iowa’s economy, creation of new employment opportunities, and a heightened awareness of entrepreneurial opportunities across Iowa (NIACC, 2017g).

**Additional partnerships.** Support for entrepreneurs and business owners is also provided by the North Iowa Business Incubator (administered by NIACC’s Business Division), providing assistance with start-up needs and accommodations. Other significant partnerships include the Workforce Development Partnership, Chamber of Commerce, Small Business Administration (SBA), and Iowa’s three regent universities: ISU, UI, and UNI. Additionally, the JPEC partnerships provide Iowa businesses with access to the National Association for Community College Entrepreneurship (NACCE), the American Association of Community Colleges, the National Business Incubation Association, as well as links to many additional resources (NIACC, 2017h).

**Entrepreneurship Curriculum**

Although Iowa’s five JPECs share a similar mission, they each have their own unique infrastructure and academic offerings; each center is focused on meeting the needs of their educational institution and local community. Consequently, this results in variations across the JPECs related to workforce development, entrepreneurial resources and support, and academic offerings.
The emphasis on entrepreneurship-focused educational offerings, such as credit-based courses, degree attainment, certification, and training is an integral part of each JPEC’s mission, which seeks to enhance the quality of life through: 1) entrepreneurship education, teaching skills to maximize the likelihood of entrepreneurial success; 2) entrepreneur and business support, helping businesses launch and thrive in a dynamic environment; and 3) partnerships to stimulate entrepreneurship, working with others to leverage resources and maximize impact (NIACC, 2017i).

However, while each JPEC may similarly focus on these three aspects of their mission, the academic offerings are unique for each center. At NIACC, the attainment of an entrepreneurship-focused degree or completion of credit-based coursework is accomplished through the Business Center—external from the JPEC.

**For-credit offerings.** Presently, all credit-based entrepreneurial coursework is positioned within NIACC’s Business Center, and all non-credit entrepreneurship-related education is offered through the JPEC. The for-credit offerings include 25 business-related degrees, diplomas, and certificates, with the inclusion of an Associate of Applied Science (A.A.S.) Degree and a certificate specifically focused on entrepreneurship.

**Associate of Applied Science Degree.** NIACC’s “Entrepreneurship & Small Business Management” A.A.S. Degree provides students with an understanding of all aspects of entrepreneurship, beginning with identification of a business opportunity, then development of the necessary steps for establishment of a business (see Appendix E). The curriculum also provides students with the proper tools for evaluation of the feasibility of a business idea and identification of the available resources for entrepreneurs during the start-up phase and beyond (NIACC, 2017i).

**John Pappajohn Entrepreneurial Certificate.** The John Pappajohn Entrepreneurial Certificate is designed for those who are interested in owning and operating their own business
in the future. Students are exposed to a wide variety of entrepreneurial topics, such as exploring a new business idea, conducting market research, preparing marketing and financial plans, and acquiring foundational skills related to owning, operating, and managing a business. The certificate’s curriculum is designed to meet the educational needs of students from all disciplines interested in creating and managing a business (NIACC, 2017).

**Non-credit offerings.** NIACC offers classes and workshops throughout the year addressing topics that range from writing a business plan to assistance with exportation. However, the Business Center at NIACC offers educational opportunities similar to those offered by the JPEC, which presents an opportunity for collaboration. While the A.A.S. Degree, certification, and all for-credit entrepreneurial coursework is located within NIACC’s Business Center, all non-credit and continuing education offerings are made available through NIACC’s JPEC and SBDC.

**Theoretical Foundation**

As identified by Creswell (2009), “theories serve different purposes in [differing] forms of inquiry; within qualitative research, they often serve as a lens for the inquiry” (p. xxiii). Following an inductive process, this study began with data collection, from which broad themes (or categories) were identified, allowing for the development of a “generalized model or framework” based upon the findings (Creswell, 2009, p. 63). Although the purpose of this study was not to develop an implementation model, it does provide a strong framework for guidance in EC development and implementation efforts by a community college. As an underrepresented area of research within current literature, EC development within community colleges lacks a presence of related theory, which is necessary to provide the foundation for development of an EC implementation framework. Based upon the critical role of strong leadership and effective
organizational structure, as identified by the respondents through data analysis, the General System Theory (von Bertalanffy, 1968) provided the theoretical foundation for this study.

**General System Theory.** Ludwig von Bertalanffy (1968) identified a *system* as “a complex of interacting elements that are open to—and interact with—their environments.” He considers such systems to be “self-regulating,” meaning that they self-correct by means of feedback (Clark, 2014). The results presented within Chapter IV indicate that there are specific components that must be present from the inception of an EC, and require close alignment with one another and shared direction for the Center. In consideration of the necessary components for successful EC implementation, Bertalanffy’s General System Theory (1968) was utilized to develop a general framework that is presented in Chapter V.
CHAPTER III. METHODS

Introduction

A study’s method is “a way of thinking about and studying social phenomena” (Corbin & Strauss, 2008, p. 1). For this study, the purpose was to gain understanding of the formation and development of the JPEC at NIACC. The case study approach was used to examine and understand the contributions of the individuals who held a developmental role in the establishment of the JPEC at NIACC, and to determine the components and considerations that they identify as critical to the development and continuation of an entrepreneurship center at a community college.

The design of a qualitative study, also known as the plan or proposal to conduct research (Creswell, 2009), provides guidance for formulating the research questions and determining the procedures for collecting, analyzing, interpreting, and reporting data. This chapter provides a foundation for the design of this study, and for understanding the chosen methods, or “techniques and procedures for gathering and analyzing data,” that guided the research (Corbin & Strauss, 2008, p. 1). Case study, as a research strategy, “tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result” (Schramm, 1971, p. 21). Based upon the participants’ illumination of the decisions made for the establishment of NIACC’s JPEC, themes were established.

Research Approach

Qualitative Research Method

Qualitative research requires a focus on meaning and understanding, for which the researcher is the primary instrument for data collection and analysis. Qualitative researchers emphasize “the socially constructed nature of reality, the intimate relationship between the
researcher and what is studied, and the situational constraints that shape inquiry” (Denzin & Lincoln, 2000, p. 8). Ultimately, qualitative researchers are interested in understanding how individuals create and give meaning to social experiences by studying participants within their natural setting (Denzin & Lincoln, 2000).

This qualitative approach to research is particularly useful when examining topics not previously studied, when minimal information related to the topic is known (Creswell, 2012; Richards & Morse, 2007; Yin, 1984), or when extant theories do not apply to the population under study (Creswell, 2009). Entrepreneurial center development within community colleges is an underrepresented area of research within existent literature, which also presents a lack of theories and/or general frameworks that identify the necessary components for development and successful implementation of ECs within community colleges.

**Institutional Research Approval**

The process for receiving approval from Iowa State University to conduct this research involved the completion and submission of certification of training related to the involvement of human subjects within research studies, the IRB’s Research Involving Humans application, and the attachment of supporting documents (i.e., consent forms, permissions, study information) (see Appendix F). As required by ISU, the “Certification to Conduct Research that Involves Human Subjects” was successfully completed on June 24, 2015 (#1756803). Institutional approval to conduct the study was obtained on September 4, 2015 (IRB ID 15-416). Similarly, approval of the study was also obtained from NIACC’s internal IRB process, prior to data collection (see Appendix G).

**Case Study Research**

In conducting research on the historical use of the case study method in the United States, Platt (1992) discovered that “once participant-observation emerged as a data collection
technique, further recognition of case study research was absent from literature. Prior to 1950, references to case study research were abundant within methodological textbooks, but diminished from 1950 to 1980, and resurged from 1980 to 1989—and continuing thereafter” (p. 18). Case study research is recognized and appreciated for its “logic of design…a strategy to be preferred when circumstances and research problems are appropriate, rather than an ideological commitment to be followed whatever the circumstances” (Platt, 1992, p. 46).

A case study can be defined as “an in-depth, multifaceted investigation using qualitative research methods of complex social phenomenon” (Feagin, Orum, & Sjoberg, 1991, p. 2). Yin (2014) states that the case study method “is used in many situations to contribute to our knowledge of individual, group, organizational, social, political, and related phenomena” (p. 4). Most commonly, focal areas of case study research include “small groups, communities, decisions, programs, organizational change, and specific events” (Yin, 2014, p. 31). Through case study research, researchers gain an in-depth understanding of a phenomenon, as well as what it means to those involved, with emphasis on the process, context, and discovery, as opposed to outcomes, variables, and confirmation (Merriam, 1988).

As stated by Merriam (1988), “Case study research, and in particular, qualitative case study, is an ideal design for understanding and interpreting observations of educational phenomena” (p. 2). To justify the use of case study methodology, the researcher must be able to “define a specific, real-life ‘case’ [in order] to be a concrete manifestation of the abstraction” (Yin, 2014, p. 34). For this study, the specific, real-life case is the John Pappajohn Entrepreneurial Center at NIACC, with analyses and outcomes related to its various aspects, including development, integration, academics, services, outreach, partnerships, and administration.
The generalizability of a qualitative case study has received scrutiny given its tendency to be limited to a specific individual or setting. However, the intention of qualitative case study research is not to produce generalizable findings (Creswell, 2009; Yin, 2014). Utilizing a small, purposive sample is not the same as quantitative generalization (Merriam, 2002). As stated by Lincoln and Guba (1985), “the responsibility of the original investigator ends in providing sufficient descriptive data to make such similarity judgments possible” (p. 298). Although a single case study provides a limited basis for scientific generalization, generalizations are seldom made to the larger population based on a single study—whether a case study or an experiment.

**Triangulation and Sources of Evidence**

Triangulation is one of the most common strategies used to increase the validity and enhance the reliability of a study (Merriam, 2009). Maxwell (2013) listed important strategies for beneficial triangulation, including “the use of multiple sources of data and several different methods of collecting data” (p. 94). Interview data, when combined with documents, for example, allows for a deeper understanding of the participants’ experiences. Consequently, “use of evidence from multiple sources would then increase confidence that your case study had rendered the event [as well as each participant’s perspective] accurately” (Yin, 2014, p. 122).

The potential sources of evidence for case study research identified by Yin (1984, p. 79; 2014, p. 105) are as follows: “documentation, archival records, interviews, direct observation, participant-observation, and physical artifacts.” Yin (2014) noted that “no single source has a complete advantage over all the others. In fact, the various sources are highly complementary, and a good case study will want to rely on as many sources as possible” (p. 105). Therefore, utilizing Yin’s (1984; 2014) categorical classifications for evidence sources, data collection for this study included: documentation, archival records, and interviews.
**Documentation**

This type of information can be presented in many forms (Yin, 2014). Documentation may include any combination of personal documents, reports of events, administrative documents, formal studies, or media. Marshall and Rossman (1999) stated that “the review of documents is an unobtrusive method which is rich in portraying the values and beliefs of participants in the setting” (p. 116). Merriam (1998; 2002) identified documentary data as a valuable source for case studies “because they can ground an investigation in the context of the problem being investigated” (p. 126).

In conducting case study research, the use of documents is important for the corroboration and augmentation of evidence from other sources, and has three key contributions: 1) documents help to verify the correct spellings and titles or names of people and organizations that might have been mentioned in an interview; 2) they provide additional specific details to corroborate information from other sources, or identify possible contradictions; and 3) documents allow the researcher to make inferences which may lead to new questions or areas of further investigation (Yin, 2014). Furthermore, it is understood that it was written for a specific purpose and audience, other than that of the researcher. To avoid being misled or potentially misinterpreting the evidence, it is important for the researcher to be mindful that “documentary evidence reflects a communication among other parties attempting to achieve some other objectives” (Yin, 2014, p. 108).

For this study, documentation and records were used to corroborate the words of the participants, and not as a means for analysis. For example, documents were examined upon receipt and cross-referenced with the interviews, newspaper and media reports, and other archival records.
To obtain permission and access to relevant documents, I emailed a preliminary list of desired documents to the director of NIACC’s JPEC. Per his request, I provided him with an extensive list of the JPEC-related topics of primary interest, which included documentation related to any of the following: planning and development documents, mission and vision statements, intended model and structure, evolution of the JPEC, advisory board minutes and action items, performance metrics, program audits, campus collaborations, outside collaborators, connections with NIACC entrepreneurial curriculum, the role of faculty, administration and leadership, program assessments and evaluations, operational budgets, contributions to workforce and economic development, educational offerings, workshops and events, campus newsletters and magazines, promotional materials, philanthropic efforts, community involvement and outreach, entrepreneurial success stories, and projected plans for the future.

The administrative assistant for the JPEC at NIACC provided me with the available documents that I had requested, as related to my research interests. These documents included the following:

**JPEC quarterly board minutes, 2015 & 2016**

- “JPEC NIACC Advisory Board Meeting Minutes,” March 26, 2015
- “JPEC NIACC Advisory Board Meeting Minutes,” June 11, 2015
- “JPEC NIACC Advisory Board Meeting Minutes,” September 17, 2015
- “JPEC NIACC Advisory Board Meeting Minutes,” December 17, 2015
- “JPEC NIACC Advisory Board Meeting Minutes,” April 15, 2016
- “JPEC NIACC Advisory Board Meeting Minutes,” June 16, 2016
- “JPEC NIACC Advisory Board Meeting Minutes,” October 5, 2016
- “JPEC NIACC Advisory Board Meeting Minutes,” December 15, 2016


Newspaper publications

- “Pappajohn gives NIACC $1.1 million for business center” (Krotz, 2000)
- “Rewarding business smarts” (Pitt, 2000)
- “Gateway’s Pappajohn on course” (Blake, 2003)
- “Study predicts ICCC will have $900 million impact on region over five years” (Pilot Tribune, 2016)

Archival Records

Archival records often take the form of computer files and institutional records, such as public-use files, service records, organizational records, maps and charts, and survey data. The collection of study-related documents was obtained through emails from NIACC professionals and online sources. The inclusion of archival records provided supplemental context to this case study by providing background information on the JPEC’s history and development. Upon identification of pertinent records, the following electronic documents were acquired:

Public Statistical data

- “Board of regents, state of Iowa 2010-2016 strategic plan” (BOR, 2014)
- “State of entrepreneurship 2015 address” (Kauffman, 2015)
- “2016 fact sheet” (AACC, 2016)
- “NIACC: Strategic plan 2011-2016” (NIACC, 2016)
- “Postsecondary institutions/cost of attendance, 2015-16; degrees/awards conferred, 2014-15; 12-mth enrollment, 2014-15” (Ginder, Kelly-Reid, & Mann, 2016)
• “NIACC EC: NIACC foundation annual report” (Pappajohn, 2017a)

• “2017 state of small business and entrepreneurship” (SBDC, 2017c)

NIACC service area

• “About NIACC: NIACC service area” (NIACC, 2017a)

Interviews

Interviews are one of the most important and commonly recognized forms of qualitative data and provided the primary means of data collection for this study (Mason, 2002; Yin, 1984; 2014). To address the study’s research questions, semi-structured interviews were conducted with key administrators and professionals who were directly affiliated with the JPEC at its time of inception, in order to understand the development of the center. Although the interviewer consistently followed a specific set of interview questions (see Appendix F), the interviews remained open-ended and conversational (Yin, 1984, p. 83). Consistent with an interpretive research approach, I served as the primary instrument for data collection and analysis (Conrad, Haworth, & Lattuca, 2001).

For this study, the interview participants discussed their contributions to the JPEC at NIACC, as related to their personal experiences—professional, administrative, and academic. Yin & Davis (2007) further identified that the primary application of case study methodology is to provide an explanation as to the presumed linkages between real-life events—too complex to employ an experimental or survey strategy. As the primary research instrument, I have the ability to immediately respond and adapt to data, to use verbal and nonverbal communication to enhance understanding, to process data immediately, to conduct member checks to ensure the accuracy of the interpretations, and to explore unexpected responses (Merriam, 2009). The use of qualitative methods allowed for the development of a holistic view upon analyzing each
participant’s interview responses through transcription, documenting the views of each participant in detail, and within a natural setting.

**Methodological Perspective**

This study followed an inductive process that “began with data collection from which broad themes (or organizational categories) were developed, followed by a generalized model or framework” (Creswell, 2009, p. 63). The methodological perspective of this study is interpretivism. I wanted to understand, through the voices of the participants, their role, contributions, and thoughts associated with the JPEC at NIACC. According to Merriam (2009), a main feature of interpretivism is that “researchers strive to ‘understand the meaning’ people have constructed about their world and their experiences” (p. 5). An interpretive perspective allows for understanding of each participant’s experiences, utilizing interviews, document analysis, and member checks (Conrad, Haworth, & Lattuca, 2001). Interviewing key participants regarding their personal involvement with the development of NIACC’s JPEC also allowed for better understanding of how each individual perceived his or her unique contributions to the entrepreneurial center—in terms of importance and significance.

**Data Collection**

Case study research is “a way of investigating an empirical topic by following a set of pre-specified procedures” and established research process (Yin, 1984, p. 25; Yin & Davis, 2007). Essential for case study research is the presentation of *rich description* and an in-depth understanding of the case, which is accomplished by collecting multiple forms of data (Creswell, 2013; Stake, 1995; Yin, 1984; 2014). For this study, I collected data from three sources—interviews, documents, and archival records—beginning summer 2016, and concluding spring 2017. This process followed Yin’s (2014) recommendations for case study protocol, starting with
a thorough literature review for posing the research questions and objectives, followed by formal identification of the data used.

**Exploratory meeting.** In preparation for the collection of data, an exploratory visit to NIACC in Mason City, Iowa took place on March 4, 2015. Although no data could be collected prior to IRB approval, the visit included an informal PowerPoint presentation by the key administrators of the JPEC at NIACC. The presentation, entitled “Transforming North Iowa: Creating a Rural Entrepreneurial Environment,” provided the initial foundation for the study’s research direction and questions. As presented by the individuals most closely associated with NIACC’s JPEC, each individual’s professional title and unique affiliation with the center is displayed in Table 3.1. No interviews were conducted during this visit, however, an important outcome of the exploratory visit was the development of the study’s research questions, each focusing on an area of interest that emerged while discussing the JPEC’s development and operations with these key administrators.

**Table 3.1**

Administrative team for the John Pappajohn Entrepreneurial Center at NIACC

<table>
<thead>
<tr>
<th>Administrator</th>
<th>Position</th>
<th>Role/Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tim Putnam</td>
<td>Director</td>
<td>John Pappajohn Entrepreneurial Center</td>
</tr>
<tr>
<td>Brook Boehmler</td>
<td>Regional Director</td>
<td>Small Business Development Center</td>
</tr>
<tr>
<td>Dan Winegarden</td>
<td>Director</td>
<td>Business Incubation &amp; Acceleration</td>
</tr>
<tr>
<td>Kelley Crane</td>
<td>Coordinator</td>
<td>K12 School Entrepreneurial Education</td>
</tr>
<tr>
<td>Mary Spitz</td>
<td>Administrative Assistant</td>
<td>NIACC’s JPEC &amp; SBDC</td>
</tr>
</tbody>
</table>
**Interview question protocol.** The case study’s questioning protocol serves to remind the researcher of the information needed for collection (Yin, 2014, p. 91). The questions act as prompts during questioning, but are primarily intended to keep the researcher focused during data collection. Therefore, the interview questions were carefully worded to effectively guide the interview (see Appendix F). While the protocol questions form the structure of the inquiry, they may not be the literal questions asked of any given interviewee given the conversational and semi-structured nature of the process (Yin, 2014, p. 90).

**Structure of interviews.** Semi-structured interviews were conducted to allow each participant to talk about their experience, which gives them more power to guide the research (Berg, 2004; Holloway & Brown, 2012). Additionally, this allows the researcher the flexibility to ask questions based upon the answers of the participants (Esterberg, 2002). Each participant was asked similar, open-ended questions designed to encourage the discussion of successes, obstacles, and suggestions for the direction and improvement of entrepreneurial centers. The questions addressed the necessary considerations and recommendations for the implementation of an entrepreneurial center within a community college, as well as associated implications. As Creswell (2003) noted, an important characteristic of qualitative research is that it is emergent rather than determined, meaning that questions may be refined throughout the research study.

**Consent to participate.** Before conducting each interview, I emailed the participants a “Participant Informational Letter” clarifying the details of the study and the agreed-upon role as a participant. Upon thorough understanding of their role and contributions to the study, each participant signed an “Informed Consent to Participate” document (see Appendix F). The signed consent forms were collected from each participant and stored within Cybox in the corresponding folder.
Following the study’s interview protocol (see Appendix F), a variety of questions were asked to provide participants with the greatest opportunity to discuss their experiences. Each interview was conducted via telephone and digitally recorded through Zoom. Individual interviews were conducted with each of the seven participants, and lasted approximately one hour. The recordings were downloaded from Zoom immediately following the interview and transcribed for analysis. To protect the participant’s identity, each individual was assigned a unique number as the means of identification throughout the study, used for all related documentation and contributions.

To ensure accuracy of the data, several steps were taken throughout the collection process. Firstly, the initial five interviews were transcribed by the principal investigator utilizing ExpressScribe, which allowed for ease of playback to consistently check for accuracy. The final two interviews were transcribed by Rev.com through funds received from the Center for Excellence in Learning and Teaching (CELT) at Iowa State University. Once the completed transcriptions had been received via email, each of the transcripts were reviewed by the PI for accuracy; the first of the two transcripts was accurate and reflected the exact words of the participants, while the second transcription was inaccurate with numerous errors. Rev.com was contacted regarding the inaccuracies and agreed that the transcription did not meet the company’s standards. However, even after being transcribed a second time by a different transcriptionist, the final transcript was still unusable due to the excessive number of errors and inaccuracies throughout. Ultimately, that interview was transcribed in full by the PI to ensure that the words of the participants would be accurately reflected within the final document.

Upon completion of each transcription, the document was emailed to the corresponding participant and they were provided the opportunity to indicate any errors or misinterpretations. No requests were made for changes to the final transcript. The faculty supervisor and PI coded
each transcript individually to identify potential themes and subthemes, which was followed by a
discussion to jointly determine the final themes and subthemes across all seven participants. The
resulting eight themes provided the framework for Chapter IV, which includes the exact quotes
of the participants as they pertain to each of the themes. Following completion of Chapter IV, it
was emailed to each participant for a final accuracy check, from which one participant requested
minor revisions for clarification purposes.

**Case Study Database**

To increase the reliability of this study, a case study database was compiled of all study-
related data. As suggested by Yin (2014), this was “a separate and orderly compilation of all the
data” from the case study, including narrative and numeric data, as well as documentation (p. 124). This database was stored in two formats: electronically within an on-line, encryption-
enabled site, and in hard-copy form as a portfolio for ease of retrieval. The final database
consisted of notes, documents, and interview transcriptions. Although many documents were
printed and included within the hard-copy portfolio, to conserve space and resources, larger files
acquired from online sources were stored in electronic form only. To protect the confidentiality
of the participants, all documentation—whether electronic or hard-copy—was only labeled with
the participants’ assigned unique identifiers.

**Participant Selection**

**Initial Conversation**

After receiving IRB approval and in consultation with Dr. Larry Ebbers, I contacted a
key informant at NIACC and scheduled a brief telephone conversation. I presented my
preliminary thoughts in regard to my intended focus for my dissertation research. There was
expressed interest in the study, and most importantly, the overall findings after completion. It
was agreed upon that there is a current need for understanding of the development of the JPEC
at NIACC and that the development of a general framework for the implementation of additional ECs within Iowa’s community colleges would provide more Iowans with greater access to various entrepreneurial resources. There was also interest in the findings directly related to the JPEC at NIACC since this study could provide guidance for the future direction of the center. This individual served as the study’s key informant providing the researcher with information and access to the case site and relevant informants (Creswell, 2013).

**Purposive Sampling**

The participants were “purposefully selected” (Creswell, 2014, p. 179) to ensure that those who were included within this study would provide the most valuable information regarding the essential issues of the phenomenon under study (Bloomberg & Volpe, 2012; Creswell, 2013; Merriam, 1998). This study’s focus was the implementation of an entrepreneurial center within the context of a community college; thus, the participants were JPEC and NIACC professionals, specifically those involved with the initial and ongoing development of NIACC’s JPEC.

Dr. Larry Ebbers first identified the initial study participants based upon his experience with and expert knowledge of Iowa’s community college governance. This study focused on those who played an active role in the development of NIACC’s JPEC for the following reasons: each participant held a unique role that offered a different perspective on the necessary considerations and components for successful EC development within a community college setting, these individuals had first-hand knowledge of the operations of an EC within a community college, they had experience with the active implementation of the first EC within an Iowa community college, and they were all highly involved within the local community and served as liaisons between community members and NIACC’s JPEC. Most importantly, they were able to provide the necessary insider information required to understand the implementation
of NIACC’s JPEC, from those who were directly involved. Following each interview, the informants were asked if there was anyone else I should speak with. This allowed for additional opportunities for interviews with key informants. The intention of this research was not to generalize the findings to the general public, but to examine the lived experiences of each participant based upon their developmental role for NIACC’s JPEC. Although the study’s sample size was limited due to explicit parameters, which included only those individuals who had played a direct role in the implementation of NIACC’s JPEC, it falls within the definition of purposeful sampling for which no exact sample size is designated. The final research sample included all seven participants who were identified as most instrumental in the development and implementation of the JPEC at NIACC, and was therefore considered to be an exhaustive sample.

**Participant Demographics**

The study’s participants included those involved with the development and implementation of the JPEC at NIACC. To protect the identity of the study’s participants, specific demographic information was not provided. For added security, when composing the final case study report, demographic data items for the participants were not matched or paired, to eliminate the possibility of specific participant identification.

The interview participants were chosen based upon their contributions to the development and implementation of NIACC’s JPEC. Therefore, each participant was contacted for an interview based upon his or her level of involvement with the development of the JPEC at NIACC. Beginning with those who played the most significant role in the establishment of the JPEC, participants were emailed to determine an interview date and time. Once an interview date and time was established, the participant was emailed an “Informed Consent to Participate” document, along with a “Participant Informational Letter,” detailing the purpose of the study, the role of each participant, measures for *anonymity and confidentiality* (Corbin & Strauss, 2008),
and the right to withdraw from the study at any time. Participants were encouraged to contact Dr. Ebbers, or myself, with any study-related questions at any time.

Sadly, due to his recent passing, the valuable perspective of Mike Morrison, former Vice President of Academic Affairs at NIACC, then followed by NIACC President for seven years, was absent from this study. His contributions to the development of the JPEC at NIACC were significant, and his support for its establishment was critical—for which we are thankful.

Data Analysis

Merriam (1998) attested that “data that have been analyzed while being collected are both parsimonious and illuminating,” and offered four guidelines for knowing when to end the data collection process: sources have been exhausted, categories have been saturated, regularities begin to emerge, and over-extension becomes evident (p. 162). Once this has been achieved, the next step is to analyze the collected data.

Qualitative data analysis can be defined as “a process of examining and interpreting data in order to elicit meaning, gain understanding, and develop empirical knowledge” (Corbin & Strauss, 2008, p. 1). For this study, the qualitative data analysis followed the steps outlined by Creswell (2003): organizing and preparing the data, including interview transcription, materials scanning, and field note documentation; 2) reading through obtained data for an overall understanding and reflection upon its meaning; 3) utilizing a coding process to generate a description of the setting, categories, and themes to be used for a detailed analysis; and 4) interpreting the data.

Yin (2014) suggests that researchers begin the analytic process by playing with the data, “searching for patterns, insights, or concepts that seem promising” (p. 135). These discoveries begin to emerge through data manipulation. The PI and her major professor utilized the following initial data analysis strategies identified by Miles and Huberman (1994; 2014):
• Juxtaposing data from two different interviewees
• Making a matrix of categories and placing evidence within such
• Creating data displays (i.e., flowcharts; graphics) for examining data
• Putting information in chronological order or another sequential/progressive scheme
• Memo writing

Mode of Analysis

The objective of analysis is to “work thoroughly and introspectively, and build your own analytic repertoire over time”—resulting in a compelling case study analysis, which ultimately leads to a compelling case study (Yin, 2014, p. 143). Similarly, Corbin and Strauss (2008) cautioned that “the analysis process, like any thinking process, should be relaxed, flexible, and driven by insight gained through interaction with data, rather than being overly structured and based only on procedures” (p. 12).

Interview Analysis

Transcription. Immediately following each interview, the primary investigator transcribed the digital recording. This method of simultaneously collecting and analyzing the collected data allowed the emerging themes and categories to become known throughout the collection process. To protect the confidentiality of the participants, unique identifiers were used in place of participant names. All documentation pertaining to specific participants was de-identified through the use of a uniquely assigned participant identifier. All electronic data was stored within Cybox using the participants’ unique identifiers, which is encrypted, password protected, and inaccessible by anyone other than the principal investigator. For all study-related documentation that was printed, the only identifier present was the uniquely assigned participant code. However, while efforts were made by the researcher to mask the identity of each participant, those who are familiar with the JPEC at NIACC and the study participants could
potentially recognize a specific participant. For assurance of validity, each interviewee was asked to review their interview’s transcript to ensure accuracy of all documented responses.

**Data coding process.** After transcription was completed, hard copies of each interview were printed for the coding and analysis process. Dr. Sara Marcketti and I independently coded each transcript in two phases, which included: 1) descriptive coding, and 2) second cycle coding. As identified by Straus and Corbin (1998), initial coding (or first cycle coding) is a process through which researchers analyze transcripts line-by-line to create codes based upon observations within the data. During this cycle, codes were assigned to sections of data, and included three methods as the analytic foundation: descriptive methods, in vivo methods, and process coding (Miles & Huberman, 2014). The second phase involved axial coding that allowed for the development of higher-level groupings (or organizers) for the previously identified codes. This served as a means for sorting the initial codes into more complex groupings, and to further identify emerging themes within the data. The resulting codes were then jointly developed into themes and subthemes by Dr. Sara Marcketti and I, based upon their interconnectedness.

**1) Descriptive codes.** Descriptive coding was used to assign a word or short phrase as a summary label for the data within the transcription. These labels provided an inventory of the key topics to index and categorize during subsequent transcription analyses (Miles et al., 2014). In vivo coding utilizes words and phrases in the participant’s own language as codes; this type of coding allows for the use of indigenous terms of the participant’s culture or subculture (Miles et al., 2014). If multiple participants used similar phrases repeatedly, it indicated patterns and regularities within the data. Process coding was especially useful in extracting participant action and the resulting consequences of those actions.

For this research study, these three methods of coding were applied to the data for the first cycle of analysis after each interview was transcribed. Applying the first cycle of coding
immediately following transcription allowed for the data to be developed while still fresh in the researcher’s mind. This process of analyzing the data concurrently with the data collection allowed the researcher to recognize emerging themes from the voices of the participants, as future interviews were being conducted (Miles et al., 2014).

2) Pattern codes. After the seven interviews had been completed, transcribed, and analyzed using first cycle coding, second cycle coding was applied to the data. Second cycle coding utilized the broad segments identified during the first cycle coding and summarized them into smaller categories and themes called pattern codes (Miles et al., 2014). The pattern codes are explanatory and ultimately identify the emerging themes, configurations, or explanations from the data. The pattern coding results in four interrelated summarizers (Miles et al., 2014): categories or themes; causes/explanations; relationships among people; and theoretical constructs.

Reflection

Qualitative research requires simultaneous data collection and analysis. According to Maxwell (2013), “the experienced qualitative researcher begins data analysis immediately after finishing the first interview or observation and continues to analyze the data as long as he or she is working on the research” (p. 104). After each interview, I reflected on what I had experienced—recording feelings, thoughts, questions, and observations of the participants during the interview, as well as reporting major themes and details of how the interview proceeded. As indicated by Corbin and Strauss (2008), “since the researcher and the research process are inseparable, the researcher must engage in self-reflective thought” (p. 12). This reflective process is a textual description of thoughts, feelings, examples, ideas, and situations that represent an experience, knowledge, and intentionality that can be understood and analyzed in light of its own evidence (Moustakas, 1994). This reflective data captured the behavior and
emotions of the participants for inclusion within data analysis, which cannot be done through digital recordings and transcripts.

**Sensitivity.** Qualitative researchers also need to have an awareness of their own subjectivity—or *sensitivity*—related to their role. This requires that the researcher be entrenched within the research to allow for a complete awareness of the study’s data, and the ability to accurately present the view of each participant—essentially, taking on “the role of the other through immersion in data” (Corbin & Strauss, 2008). Recognizing this results in valuable interplay between the researcher and the data, from which a greater understanding of the data’s meaning begins to emerge, and leads to what Corbin and Strauss (2008) refer to as the “Aha” of the research (p. 33).

**Trustworthiness**

For qualitative research, it is essential to ensure authenticity of the participants’ voices during data collection, transcription, and analysis, also referred to as trustworthiness. Lincoln and Guba (1985) defined trustworthiness as the researcher’s ability to convince audiences that the findings of a study are worth paying attention to or incorporating into their practice. By spending adequate time in the field with the participants in their natural setting, a deeper understanding of the phenomenon can be created (Creswell, 2009). Having this in-depth understanding leads to a higher-level of accuracy and validity in regard to the results of the study. For this study, time was spent with each participant for data collection, followed by large time allocations for transcription of each digital recording and analysis of data.

Additionally, other forms of trustworthiness were built into this study’s design, and included: member checks, peer debriefing, thick description, and recognition of researcher bias.
Member Checks

A common strategy used in qualitative research to increase the validity and strengthen the reliability of the study is member checks (Merriam, 2002). Lincoln and Guba (1985) referred to member checks as the most essential method for establishing credibility, and described it as a process “whereby data, analytic categories, interpretations, and conclusions are tested with members of those stakeholder groups from whom the data were originally collected” (p. 314). Member checks were implemented within this study for each interview conducted, and consisted of sending a copy of the transcribed interview to the corresponding participant for verification, ensuring that the document: 1) contained authentic information, and 2) was presented in the words of the participant (Merriam, 2002). The participants were provided the opportunity to address any changes, comments, or concerns within their transcript. When necessary, I contacted individual participants throughout the data analysis process for clarification of responses, or if additional information was needed.

Peer Debriefing

Peer debriefing is a process whereby the researcher shares his or her analytic process “for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer’s mind” (Lincoln & Guba, 1985, p. 308). This process enhances the accuracy and trustworthiness of the study by “involving an interpretation beyond the researcher and invested in another person” (Creswell, 2009, p. 192). As stated by Lincoln and Guba (1985), peer debriefing also keeps the researcher honest and asks thought provoking questions—providing feedback through emails and written notes to complement the researcher’s analysis of the data.

Peer reviews are a form of external validity that can contribute to a higher degree of generalizability of the findings (Creswell, 2013). For this study, my faculty advisor, Dr. Sara Marcketti, served as the peer reviewer. Independently, we reviewed the interview transcripts and
then discussed the initial coding and themes that emerged. Throughout the analysis and writing process, Dr. Marcketti and I met weekly to review the drafts of the results chapter, examining both my analysis and the initial interview transcripts.

**Thick Description**

I conveyed the findings for this study using rich, thick description, helping to “transport readers to the setting and give the discussion an element of shared experiences” (Creswell, 2009, pp. 191–192). Each theme was developed from analysis of the data and presented in Chapter IV with numerous quotes that present the valuable perspectives of the participants. Using rich description allowed the results to be more realistic and added to the validity of the findings (Creswell, 2009). For this study, detailed descriptions of the participants’ “actions, behaviors, and words, including processes, intentions, and feelings,” were portrayed within their own setting and cultural context, and presented in the results chapter (Holloway & Brown, 2012, p. 20). To uphold the required structure for a case study, the presented research is heavily comprised of self-reported data from the interviewees, utilizing phrases such as: “she/he reported that…,” “as reported by the interviewees,” or “as stated in the interview” (Yin, 2014, p. 123).

**Addressing Researcher Bias**

**Reflexivity.** An additional aspect of triangulation used for this study addressed potential researcher bias. In qualitative research, the researcher is the instrument for data collection and responsible for the reporting of rich, thick data (Creswell, 2013; Xu & Storr, 2012). In recognition of the human element involved within data collection and analysis, the possibility of researcher bias or reflexivity may exist, whereby the researcher’s actions may have influenced participant responses (Corbin & Strauss, 2008). Finlay (2011) recommends that researchers address their own subjectivity through recognition of personal reflexivity, also known as “critical self-awareness” or “critical subjectivity.” Through clarification of the researcher’s position within
the study, reflexivity helps to deter the distortion of data and enhances the depth and validity of the resulting research (Holloway & Brown, 2012). Reflexivity also helps deter common reporting errors, such as neglecting to ground the analysis in the data, under-discussing the collected data, or failing to connect the data with related literature (Holloway & Brown, 2012, p. 95).

**Researcher Positionality**

**Community College Influence**

My interest in community colleges began when I enrolled at Iowa Central Community College in 1997. Just a year earlier, I was a high school senior excited about life after graduation. However, while struggling to salvage a bad relationship, I found myself faced with single parenthood; that was now my future. While classmates rejoiced over college acceptance letters, relocation was not an option, and ICCC was the only local college. What I thought would simply be a two-year degree for local employment actually sparked a lifelong interest in higher education, leaving me to question how I could positively impact students’ educational experiences such as those who had impacted mine.

My decision to initially attend a community college, as opposed to a university, was based upon my perceived ability to do well. Unlike traditional students with the typical assignments and exams, I also had a newborn and a failing relationship. I took full-advantage of ICCC’s student assistance programs and opportunities, wholly immersed in all it had to offer, and maintained honor roll status each semester. In addition to my success with academics, I became involved with campus organizations and held many officer positions, which had not been my initial intention. However, the intimate campus environment, at which time was only a fraction of its current size, was very inviting and encouraging. As a result of my experiences and involvement at ICCC, I graduated with a strong, diverse resume, as well as a heightened appreciation for community colleges. Following ICCC, I transferred to Iowa State University...
and completed my Bachelor’s Degree (B.S.), Master of Family & Consumer Sciences Degree (M.F.C.S.), and Master of Education Degree (M.Ed.), concentrated within the areas of Higher Education (HE) and Apparel, Merchandising, and Design (AMD).

My success at ICCC as a non-traditional, first-generation college student played a large role in my decision to pursue a degree in higher education administration. I owe my achievements as an educator and administrative professional to the foundation that I received from ICCC. From the exposure and experience that I gained through involvement in campus opportunities, such as President of Phi Beta Lambda and Student Government Treasurer, I successfully transferred to Iowa State University after graduating with honors. Due to ICCC’s campus offerings beyond academics, I was able to participate in activities that were directly related to my career interests. Having personally benefitted from the many resources that ICCC provides to students, I understand the importance of such resources to students and the need to continually improve upon these offerings.

**ICCC family alumni.** I attribute my academic successes to the nurturing and comprehensive environment of community colleges. In addition to completion of my A.A. Degree in Business Administration, my family has had many similar successes while attending Iowa Central Community College. My sister and I both attended ICCC, and then transferred to a state university. In 1973, my dad attended ICCC to complete a certificate in Elevator and Farm Supply Management, after which he accepted a management-track position at the Manson, Iowa Co-op. In 2002, after 26-years of marriage, my parents’ divorce immediately shifted my mother’s focus from raising her children at home, to reentering the workforce—without a college degree, or even a high school diploma. Consequently, she enrolled in ICCC’s General Educational Development program, and received her GED—at the age of 50. Most recently, in the fall of
2015, my oldest daughter, Macy, became our family’s third generation to attend ICCC, which she proudly used as her “interesting fact” during course introductions on her first day.

**Entrepreneurship Background**

Although an extended absence from your degree studies is not ideal, and creating a distance between yourself and your degree-institution (i.e., such as accepting an academic position prior to your final defense) is highly advised against, I relocated to San Marcos, Texas after successfully completing my preliminary exams for my Ph.D. This was not my original intention, nor had I ever entertained the notion of moving beyond Iowa, but ultimately led to a series of serendipities. The first of which was a call from the Fashion Merchandising (FM) program at Texas State University, offering me an adjunct position to teach four courses—two fashion-related and two pertaining to entrepreneurship. This was my first “academic” introduction to entrepreneurship and business development, although I had experienced it through my mother’s establishment of Sister Sadies (a gift shop and tea room) located in Fort Dodge, Iowa. Not unrelated to my own situation, my mother utilized community resources and assistance through ICCC and successfully opened her own business—without any formal education to do so.

After teaching several semesters at Texas State University, I accepted a full-time position as the Lead Professor for the Fashion and Retail Management (FRM) program at The Art Institute of Austin, in Austin, Texas. This broadened my academic repertoire to include administrative responsibilities, in addition to teaching 15 unique courses within the FRM program (see Appendix H for course listings). Teaching courses in the areas of merchandising, marketing, promotions, and business ownership greatly enhanced my understanding of and appreciation for entrepreneurship. In 2014, I reluctantly resigned from my position and declined the opportunity to assume the role of Program Director. I recognized that my allotted time for
Ph.D. completion was already over-extended, and by accepting a new administrative position, I would only further impede the possibility of graduation. Therefore, acknowledging the personal importance of finally completing my Ph.D., I returned to Iowa State University to refocus on my dissertation in a more propitious environment.

**Business Establishment**

Having observed the planning and development of my mother’s gift shop, Sister Sadies, I realized that business development is the result of motivated individuals who are driven to succeed, and that a college degree was not a prerequisite or determinant. While she eventually sold her business, the store remains successful today and has become a community staple: established by a woman with only a middle school education, but sought the necessary resources to do so through ICCC, and put forth the required effort.

**Outsider Positionality**

For this research study, I consider myself to be positioned as an outsider. The study participants were experienced administrators and industry professionals with many years beyond that of mine. Although my educational emphasis has heavily focused on Higher Education, I have not held high-level administrative positions similar to those of the participants, nor do I have vast experience or knowledge of John Pappajohn Entrepreneurial Centers or entrepreneurial center development. My familiarity with the name “John Pappajohn” was solely related to the location of my ISU business classes, which were held at the John and Mary Pappajohn Education Center in downtown Des Moines, Iowa; coincidentally, my classes were amongst the first to be held there after its opening in 2003 (Blake, 2003, p. 1B; 6B). To further strengthen my outsider positionality, the participants within this study had not held positions within my own institution, Iowa State University, and conversely, I had no previous associations with NIACC before this study.
As a graduate of a community college, I can attest to the value of the education and services that are provided for students and the community; however, my exposure has been primarily limited to ICCC. Although I have been familiarized with many of Iowa’s CCs as a component of my HE coursework, prior to beginning this study, I had no previous experience with NIACC.
CHAPTER IV. RESULTS

Introduction

Prior to data collection, each participant received a Participant Informational Letter and an Interview Procedure and Questioning guide. Upon thorough understanding of each document, an Informed Consent to Participate form was signed by the participant and collected by the researcher (see Appendix F). Qualitative interviews were then conducted with the professionals who were identified as the principal contributors to the establishment of NIACC’s JPEC, and included two NIACC presidents, each of four JPEC directors, and the namesake investor (see Table 4.1). For confidentiality purposes, each of the directors and presidents was given a pseudonym. John Pappajohn allowed for the use of his name and attribution of quotes, given that his interactions and contributions for the establishment of NIACC’s JPEC were significant aspects of this study.

Table 4.1

Identification of study participants, positions held, & specific roles

<table>
<thead>
<tr>
<th>Interview Order</th>
<th>Participant</th>
<th>Position Held</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>John Pappajohn</td>
<td>Namesake &amp; Investor</td>
</tr>
<tr>
<td>2</td>
<td>Director D</td>
<td>JPEC Director</td>
</tr>
<tr>
<td>3</td>
<td>Director C</td>
<td>JPEC Director</td>
</tr>
<tr>
<td>4</td>
<td>President A</td>
<td>NIACC President</td>
</tr>
<tr>
<td>5</td>
<td>President B</td>
<td>NIACC President</td>
</tr>
<tr>
<td>6</td>
<td>Director B</td>
<td>JPEC Director</td>
</tr>
<tr>
<td>7</td>
<td>Director A</td>
<td>JPEC Director</td>
</tr>
</tbody>
</table>
Leadership Reflections

As defined by the Oxford Dictionary, implementation refers to “the process of putting a decision or plan into effect; execution” (Implementation, n.d.). Within this study, there is particular interest in the decisions, plans, and execution of the John Pappajohn Entrepreneurial Center (JPEC) at North Iowa Area Community College (NIACC)—respectively, the implementation of the center. This case study presents the varied thoughts, actions, and reflections of seven highly accomplished professionals, recognized and respected for their significant contributions to the establishment of the JPEC at NIACC.

NIACC’s JPEC has been catalytic in creating and driving entrepreneurship within the local community and regional service area. The success of the JPEC and its continuing efforts has been greatly recognized within the state of Iowa, as well as by community colleges beyond Iowa. In 1996, when the JPEC was established at NIACC, the concept of entrepreneurship was relatively new—as a concept or a discipline (Katz, 2003). Today, however, entrepreneurship is embedded within the curriculum of many disciplines, including fashion, and is respected as a critical component of economic development and community vitality. This study examined the lived experiences of the key decision-makers during the implementation and continuation of NIACC’s JPEC, and documented each individual’s role and reflections.

The responses of the participants, which included four JPEC directors, two NIACC presidents, and John Pappajohn, reflect the wide spectrum of implementation considerations and efforts that are required by key leaders. Although each participant’s role during the establishment and growth of the JPEC was unique, the need for strong leadership, collaboration, partnerships, and community support was consistently identified as essential for an entrepreneurial center within a community college.
Identification of Themes

As the focus of this qualitative study, NIACC’s JPEC offered a compelling case study of the many facets of such a center within a community college. Throughout this chapter, the respected insights and lived experiences of each participant are discussed. In doing so, this study provides a distinct perspective that is unique from preexisting literature, and presents a general framework based upon the emergent themes shown within Table 4.2 below.

Table 4.2
Identification of the case study’s resulting themes & subthemes

<table>
<thead>
<tr>
<th>Theme</th>
<th>Subtheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>JPEC Beginnings</td>
<td>Role of John Pappajohn, John Pappajohn’s Vision</td>
</tr>
<tr>
<td>Structure</td>
<td>New Concept, Components, Center Funding</td>
</tr>
<tr>
<td>Education</td>
<td>Integration, Curriculum, K12 Extension, Continuous Learning</td>
</tr>
<tr>
<td>Leadership</td>
<td>Mission, Advisory Board, Stakeholders</td>
</tr>
<tr>
<td>Measuring Success</td>
<td>Establish Metrics, Business Development</td>
</tr>
<tr>
<td>Community Involvement</td>
<td>Meeting Needs, Outreach, Collaborations</td>
</tr>
<tr>
<td>Obstacles</td>
<td>Lack of Funding, Community and Campus Buy-in, Perception of Being Discounted, Rural Development</td>
</tr>
<tr>
<td>Uniqueness</td>
<td>Foundation for Independence, Community Connection, Financing Options, Relationship across JPECs, Advantages</td>
</tr>
</tbody>
</table>

Upon analysis of the transcribed interviews, eight themes emerged as central to the focus of this study, as well as related subthemes. The direct responses of the participants are provided
throughout the following section, in association with the identified themes and subthemes that emerged. This chapter provides a thematic review of the interview transcripts, along with identification and discussion of each theme, with the associated quotations obtained directly from the respondents.

**JPEC Beginnings**

The JPEC at NIACC was founded in 1996 as a result of John Pappajohn’s vision, “Nobody ever thought of it. Nobody had even thought of any of the things that I saw…as a way of getting businesses started…100% my idea.” It was created at the same time as the other four JPECs in Iowa, but it is currently the only one at a community college. While discussing the beginnings of the JPEC, the following subthemes emerged: Role of John Pappajohn, and John Pappajohn’s vision.

**Role of John Pappajohn**

According to John Pappajohn, the center was created in the midst of a terrible agricultural recession. He stated,

I had very successfully sold some companies and I was…I had lots of cash. And so I told my wife one day, I just had the idea…I said, you know, what’s the best thing we can do for the state of Iowa—and that is to help start companies. And that’s the way to get the economy started. And so my wife thought it was a very good idea. She was very supportive, and so I made contact with the governor, and the governor happened to be Governor Brandstad, and I told him of my idea, and he thought it was a great idea. And so we did a “fly-around,” and so, we flew to Ames, flew to Iowa City, we flew to Cedar Falls, and we told everybody—the president of each one of the schools—that this idea of mine was to start an entrepreneurial center in each one of the schools.
Director D reinforced these beginnings. He also added that John Pappajohn had “contacted each of the individual institutions, the regents for obvious reasons why, but NIACC—John is a graduate of NIACC (at the time is was Mason City Junior College), and John’s from here, he grew up here, their family grocery store…so there’s a lot of affinity, and John has two brothers that live and work here, as well.” President B was familiar with the JPECs beginnings, but simply stated that, “It’s my understanding that Pappajohn actually approached the state. It’s John Pappajohn and the governor’s foresight to see the value of this in the state.”

It is to be noted that NIACC had been in conversation regarding the establishment of an entrepreneurship center on campus. President A stated that he believed “the earliest endeavors probably date back to the, I would say, 84, 85, 87—somewhere in there.” He stated that he would occasionally have conversations with John Pappajohn related to various things because they “had a good relationship and he [John Pappajohn] was a highly regarded alum of the college.” Continuing with this thought, President A stated,

So, we had some contact and involvement with him prior to the specifics related to the entrepreneurial center. The conversation came up, I think, in one of my many conversations with him. We had had some individuals at the college in the continuing education division, or the Business Division, that had an interest in entrepreneurial education and we had actually kind of put together some propositions for our own consideration, our own budgeting consideration, to start an entrepreneurial development effort—sort of a strategic initiative of sorts.

However, President A recalled that NIACC was “stumbling financially to do that.” He acknowledged “a foundation based in Kansas City” for its instrumental role, “allowing us to really hire staff and create the center…very minor funding to get started and do a few things—offer a few courses and classes and things.” He continued to state that,
A more robust proposal came out of that to actually kind of crank things up a little bit that I recall presenting to John and asking for his financial help. John's financial contributions had started early and were fairly modest at first, but gained in scope and size over the years. And when he made his larger announcement that he was creating these centers at various places, we were real pleased to be one of them.

President A felt that the additional support and funding by John Pappajohn would “help us really put some muscle behind our early efforts.”

The establishment of the JPECs actually began at one of Iowa’s regent institutions, following a visit from John Pappajohn,

I went to the University of Iowa—I started out there and I gave them a million dollars…to start the center. I talked to, I believe, [the] acting president at the time, and then I went to NIACC. And then at Ames, the president…I remember I called him up [to] come and see me—I want to talk to you—and I gave him a check for a million dollars.

John Pappajohn briefly mentioned his reasoning for establishing an entrepreneurial center at each of Iowa’s regent institutions,

Iowa State has lots of technology because of their engineering school, which was a real plus. They’ve always done a real good job. The University of Iowa has medical, and many of the faculty start medical companies. But Iowa State, the real advantage of engineering is lots of spinoffs of the engineering school. And then at UNI, the president was also very receptive. And, so…that’s how all those [regent JPECs] got started.

Lastly, John Pappajohn stated that he “went to Drake and gave them some money, and so that’s where all five of the schools got seeded.” However, President A reported that “…at the time, Drake and Iowa State and UNI were fledgling. I think they had people there that had
interest and experience in entrepreneurial education—that because of John’s interest and initiative to create this network of centers, they came to the table.” He further differentiated between the varying levels of entrepreneurial experience amongst the five JPEC institutions, stating that,

The University of Iowa and NIACC had both been heavily engaged with John earlier, to actually create and pursue entrepreneurial development and entrepreneurial education. I think our perception was that Drake and Iowa State and UNI were relatively new to the concept of a center, while we [NIACC] were a little experienced.

President A recalled being “real pleased and feeling that we should’ve been included in that initial launch of centers by John and his statewide initiative—and we were.” President B also reflected on John Pappajohn’s desire to “build out a statewide system…related to developing entrepreneurists,” stating that “he threw us a bone, if you will. He identified NIACC and North Central Iowa as a location a center should be, so we’re the only community college that has a Pappajohn Center presence.”

Throughout the interviews, there was an expressed appreciation of the role that John Pappajohn played in the JPEC’s development. Although he was not actively involved within every detail or decision, he was always accessible and eager to assist with any needs. Initially, John was not a member of the JPEC’s advisory board, but he was frequently updated regarding the Center’s progress. As recalled by Director A,

I would go down and meet with John and kind of give him updates and seek his advice—to make sure we were doing stuff that he was interested in. I would just go down and see John and he would regularly come up—mainly because his brothers were living there and he had a place at Clear Lake, so then I would see him there, as well. The nice thing about John is I can always—now and back then—I could always pick up a
phone and I could talk to John whenever I want, and get advice…talk to him about things, so, he's very, very accessible. But again, it was pretty much…the big thing was we wanted to keep busy and doing stuff, so we didn't have John call us and say, 'What the heck did you do?' It was much more, we're gonna have our foot on the gas doing all sorts of things trying to help people, so John felt good that his investment was being used wisely up in Mason City.

Director B described John Pappajohn as “a visionary with an idea and that's so supportive to help us do it.” He also noted that “…the other thing that was just so nice was that he clearly understood we were kind of a different kind of situation than the university settings.” [He was] “very supportive in networking and suggesting people to talk to, or avenues to take to get this thing going. Certainly, support went far, far beyond financial.” Director B then stated that “it's one thing to provide financial support and then be distant, and that was not the case. It was financial plus tremendous other support.”

As reported by The Des Moines Register, although John Pappajohn is considered to be “retired” at the age of 88, he still works harder than most people (Patane, 2016). He reflected on the idea of being “retired” as follows,

Well…I'm not really retired. I spend hours—this is Saturday—and I work Saturdays, I work Sundays, and my clients—or my partners in business—they know I’m available. So that’s a plus. I’m able to get quite a bit done because of my availability. And I have a very understanding wife and no children at home, which makes it very easy—very easy to handle. So we can call it a quasi-full time (laughing), but it’s not quasi, it’s over 50 hours even now—over 50…probably over 60.

Even after celebrating the 20th anniversary of the JPECs, John Pappajohn is just as invested and involved with the JPECs today and continues his work as an entrepreneur and
philanthropist. Director B thought that “…what was so remarkable and rewarding and appreciated was his accessibility to myself for ideas—I'm only a phone call away.”

**John Pappajohn's Vision**

While speaking with Director B, it was clear that John Pappajohn’s role was much more than writing a million-dollar check and constructing a JPEC building on campus.

In that early period, John was making financial commitments sort of a year or two years at a time to us, both for operations and then for building the building. John's money was covering our efforts…our training efforts, all of that. In addition to that, he funded a good part of the building that we named, of course, the Pappajohn Center.

However, years before the JPEC at NIACC had its own building on campus it already had a *presence* across campus. Director B provided a deeper understanding of some of the initial decision-making for the JPEC’s development, stating that “it goes to John's vision and [President A’s] vision…even as I joined Building C as the director, it was…get some programs, get some classes, get some activities, run some people through these…start some businesses. That was really our focus.” John Pappajohn’s intention to establish NIACC as a center for entrepreneurship began with selected course offerings and services, and “the building came later.” Director B explained that, “We were running programs out of good old Building C, planning, and the building came later. That's a vision, really. That's John's vision and willingness to have us focus on the right things. Isn't that interesting?”

Since Director B was one of the early directors, he was able to address initial developments with the JPEC and its unpretentious beginnings. He spoke in-depth about Building C, and told the following story:

It's funny because the location of our 'Pappajohn Center' was actually a double-wide trailer on this campus—not even a permanent building. John knew we were going to
need to put this in an environment that's appropriate, but it literally started off based in this double-wide...what [President A] called 'the last non-permanent building on campus.' Isn't that a great phrase? And that's code word for 'double-wide.' I joined the double-wide, and then [Director D] one day walked in to apply for the job in the double-wide, and it was from there that we started talking to John about building an actual building. There were a few months in there and approaches to John...We celebrated the day we knocked it down. It was one of those deals; I remember vividly watching the wrecking ball knock it down, and we were so happy about that. What it goes to is vision. If you're a community college right now...there are probably some community colleges that still have buildings like that. By sticking with it, look what can happen. That would be my big message to another college contemplating this. We started in pretty—what's the right word—pretty meager circumstances until we started putting all the pieces together. That could be the starting point for other community colleges...they will not be resource rich, necessarily.

Director B thought that the best part was President A “describing it as ‘the last non-permanent building,’ as if that's going to help really convince us it's a great building...It was just what I would describe as a double-wide...Building C.” He then laughed and recalled how President A “…would say it with a glint in his eye.” Ultimately, Director B said, “I was able to really accomplish two things: 1) get rid of that [Building C], and 2) build the center.” He also mentioned that, “It's fun to think about how a college might think about starting one of these [entrepreneurial centers]. I hadn't thought about it on those terms in a while.” On a personal note, Director B said,

…But for me, I never wavered for a moment. It was exactly what I wanted to do. It turned out to be one of the greatest experiences that I had in my career. But it was that
level of a building…where people looked cross-eyed at it. We came a long way from that because of the efforts of many people.

It was evident after speaking with JPEC administrators that John Pappajohn not only provided the vision, but also the initial and continued financial support. As indicated by Director B, at the time of implementation, the JPEC lacked the necessary resources to establish its own building on campus, and rather, allocated such funding to the programs and beginnings of the Center. However, as a result of John Pappajohn’s continued support, he provided an additional $1.1 million for the construction of an official JPEC building in 2001. This sequence of events aligned with the expressed thoughts of Director C, regarding the need for an entrepreneurial center to establish initial buy-in and continued support prior to center development. He stated that one of the main lessons he learned was “…don’t build the center first or build the staff first, get the support of the communities, your constituent’s funding, and commitments that they want to help—and will help—with funding in the long-term.”

**Structure**

The next theme is related to structure and encompasses the subthemes of: New Concept, Components, and Center Funding. When initial discussions began regarding the potential for an entrepreneurial center at NIACC, Director D stated that “…back in 97, there were only a couple of these entrepreneurship centers at community colleges in the country.” John Pappajohn recalled that, “There wasn’t… really very much going on in the whole country at that time. It was very early; we were one of the early, early entrepreneurial states at that time.”

**New Concept**

Due to the novelty of creating and implementing an entrepreneurial center at NIACC, President A stated that,
No one exactly had a roadmap of what an entrepreneurial center was supposed to look like, and how it was supposed to operate. But we were figuring that out, I thought, pretty successfully. I think we simply ran up against resource issues of how fast and far we could take it.

Director A described one of his early conversations with John Pappajohn, regarding the development of the JPEC as follows,

I met with John, and he said, ‘Do what you can and try to get some things going.’ And, I mean, there was no real directive or any type of road map on what to do, because at the time, there really weren't [many] entrepreneurial centers that we could find at community colleges.

Furthermore, John Pappajohn noted the deficiency in entrepreneurial coursework prior to the JPEC's development, stating that,

There were no courses in entrepreneurship when I went to school...there was no help and there were no courses. That's why it was so difficult—each one [of the JPECs] did it their own way. Today it's much easier because there are lots of different opportunities. But, back then—to my knowledge—there were no...absolutely no courses or no existing organizations that one could emulate and use as a model.

Director A added that “on the academic side, you really have two tracks.” He explained that “you have one track that they're gonna be transferring to a four-year institution, so they're pretty much just trying to get their gen eds out of the way.” And for the second track, “you have people that are going there to get technical training to go into the workforce.” He also added that “when I got there, entrepreneurship wasn't being talked about. It was something brand-spanking new. There were no classes, there were no real efforts to try to work with the college students and really help them dig through.”
Therefore, it was the efforts of many that ultimately created the JPEC at NIACC. Director B attributed its early accomplishments to the “assertive leadership” of President A, in collaboration with John Pappajohn and Director B. He remembered that the three of them “…just really worked to move really quickly because we were a small enough scale to get going.” He also recalled that “…people in the local business community were very helpful. If I called for ideas or needed something, people were very willing to support this center and get it started. There was really a lot of energy and excitement around it.”

John Pappajohn referred to the creation of the JPECs as “…a jump ball kind of a thing.” He then continued to state that, “In other words, there were no restrictions in terms of how they were going to run it—except that it was a not-for-profit, [and] that we were trying to create economic productivity in the state.” Since there were no restrictions on how the JPECs would be organized and operated, John Pappajohn proudly acknowledged that, “Each one is different…each one is different. They operate differently, yet they’re all successful. And they’ve changed—they all changed. And they figure out the best way for them to work.”

Components

After determining the initial direction of the JPEC, significant consideration was given to the appointment of leadership. When hiring personnel for the JPEC, Director C was insistent on the need for actual, real-world experience in business, affirming that, …Everybody we hired involved in the Pappajohn Center had been in business. These are not educators—they were not. They were highly successful presidents, owners of their own companies, presidents of very large companies. And by mowing down that path, we created a nucleus of a team that had backgrounds and skill sets in different areas.
In terms of the structure and organization of the JPEC, Director C stated that “…when John provided the money, he didn’t provide a blueprint. He just said, ‘this is for an entrepreneurship center.’ We had to create our own goals and our own method of doing things, and each one was different. That’s one of the ingenious parts about it in the end.”

Each of the JPEC institutions took a different approach for development, as mentioned by John Pappajohn below,

The University of Iowa brought somebody in that had set-up the center…in Philadelphia, at the Business School there. He came in and taught for a year. Iowa State took off on their own because of the engineering school, and the entrepreneurial environment there worked very well. Drake has been very creative because they don’t have medical and they don’t have engineering, and so they’ve been able to build it around their strengths—which are all of the social programs, and everything else. And yet, there’s no restriction for Drake not to do an engineering deal or a medical deal.

There are no restrictions for any of the schools.

As far as the beginning of the JPEC at NIACC, John Pappajohn recalls that “…they had a number of individuals involved around NIACC that helped at the University of Iowa, create some aspects of entrepreneurial center operation and programming that we certainly embraced. Much of the operation, however, [was] locally conceived and developed.” Initially, Director B noted that the JPEC was “…pretty much one director and one associate. The other team members have grown along the way.” He then continued to explain that “I think it was really a one-person band…very early on. He had a few nighttime classes—a very early introduction to entrepreneurship sort of thing.”

After many discussions with NIACC and JPEC administrators, Director B determined that “…we needed some courses, some classes, some partnerships, some products to get
going…to start training people to try to get them with the skills to start some small businesses.”

To accomplish this, he stated that,

In my tenure, a large part of my focus was setting up new courses, setting up curriculum, doing some of what they call ‘non-credit’ [along with] some ‘credits.’ We actually started some credit courses online. In that period, a lot of my focus was—either myself or getting some others to help me—to set up some entrepreneurial classes which didn't exist here before.

President A recalled that in the beginning “…there were some services and some relationship building efforts with entrepreneurs—people who had perhaps been through some of the educational courses or programs, or were entrepreneurs that wanted some additional connection with other entrepreneurs.” To provide further assistance “we had hired a handful of people that had this interest and this assignment, and they pretty much had free reign to go out aggressively toward our shared vision.”

When Director C joined the JPEC, it was important to him that he begin by “…spending time with all the other directors.” He wanted to know what they were doing, stating that “I was just coming in. I wasn’t content to just come in and just do whatever was being done.” He also recognized the need to be cognizant of comparative programs, and the potential for making suitable modifications to fit your program’s needs. He stated that,

You have to constantly tweak what you’re doing and grow it. You can’t do it all on your own. You sometimes have to steal ideas—and I don’t mean stealing them by not paying for them. I mean…you see ideas and you adjust, and you say how can that work here, and how can it work in my environment, and how does it work for our clients…and then you begin to design what works for you. Absolutely, tons of that kind of collaboration—and certainly early on.
The growth of the JPEC was an early objective of Director C, and he was successful in doing so. He explained that,

We were successful while I was there—raising the bar, finding people, finding money, having success with businesses, getting more recognition for NIACC’s JPEC, and, eventually, because of the success we were having…and did have…and they’re still having—we began consulting. Not only in the state of Iowa, but other community colleges helping them, and we did that for free. But we [also] did outside the state—and we charged for that. So helping outside the state…we helped other states with their efforts to create entrepreneurial centers and gave best practices and we got paid for that.

When Director C arrived at the JPEC, there were three employees. By the end of his tenure, that number had more than doubled. He added that “…we’ve expanded our role in our region. I assessed what needed to be done there, and ran it like a business. And we expanded our region, expanded the opportunities…got a lot of big grants.” One of the largest grants received was a federal grant for a million-and-a-half dollars that was used “to help build-out” the new JPEC building. Director C made the decision not to “build new” with the funding, but rather,

…We converted space on campus and had a small edition, and created an incubator—both an office and a physical manufacturing site—so they could either be office-based or manufacturing-based…small manufacturing-based. We began to recruit clients that we had that were wanting to start businesses, or wanted to bring their businesses out of their homes or out of their garages, and take it to a serious level and put them in an incubator.

However, he noted that while researching incubators in the past, too many were thought of as “…free rent or cheap rent—that’s not the point of an incubator.” Director C insisted that, “An incubator needed services to deliver and requirements on the businesses that were in there and incubated, in order to have any kind of opportunity.”
After establishing an incubator for the JPEC, Director C then “…pursued an opportunity with the state of Iowa to get some funding to create an accelerator.” Once an accelerator was established, he stated that,

…We ended up having responsibility from the Mississippi River to Missouri—North of Highway 20. They gave us that responsibility, so we took clients and referrals from the state. We had staff that would go out in those areas, and eventually, that got narrowed back down.

Director C stated that, “So, when a client would come in with a start-up or an expanding business or an owner-transition—whatever it was—one that’s in trouble or one that was just looking to grow, we would sit down and triage—to use the term out of medical—with our entire team. [To] learn about it, we would do a diagnostic on the individual business and then we would assign someone that’s a lead, that had the skill sets that would mostly align with the individual business that needed help in the areas that we had identified needed sewing-up first.

The JPEC was strategically organized to provide a variety of services able to meet the needs of business owners, as well as aspiring entrepreneurs. President B noted that the JPEC’s director and staff meet every Monday “…to look at the client list and what the needs are, and then they distribute those as they see most appropriate. To increase the efficiency of the JPEC, Director C indicated that he felt “…great synergies could be had by integrating” the SBDC fully within the JPEC, where it still resides today.

Director D discussed the current organization of the JPEC at NIACC, which included a staff of six. He explained that the JPEC has a director, with two directors under that position, for which “one is the business accelerator director, so he works with growth-based businesses, and then the director of the SBDC.” He further noted that the SBDC director “…works with main street type businesses, service, and retail-style businesses,” while the business accelerator
director works with “…growth-based—those that have inner-state commerce.” The JPEC also employs a coordinator for the entrepreneurship education programs, a part-time employee who reports to the director of the business accelerator, and an administrative assistant to the JPEC’s director.

President B added that the JPEC additionally employs “…some people on contract to provide specific expertise for us…the banking industry…or basically, when we get to a business when we know we’re in over our head, we’ll help try to find some experts to get the people.” He stated that in terms of the JPEC’s organizational structure, “It’s pretty small.” However, in comparison to the JPEC’s initial team of one director and one staff person, today’s team of six or more core individuals, as well as numerous industry partnerships and campus collaborations, has grown substantially.

Center Funding

In addition to identifying the necessary components and key leadership for an entrepreneurship center, a prime consideration is that of center funding. President B identified the main sources of funding for the JPEC as follows, “… continued funding from John’s initial commitment, the [College] has resources in the pot, as well, and then the SBDC center; those are the three main pots.” Director D presented a more precise breakdown of the JPEC’s funding, roughly estimating that “John is probably 40 percent, the community college matches probably another 30 percent, and probably another 20 percent grant funding, and probably five to 10 percent program income.” He then provided more specifics related to the JPEC’s funding sources as follows,

We have a state grant right now that pays for the [business incubator] program. Then we have some grant funding through CIRAS, as well, so the state and the CIRAS pays for the accelerator side of things. John pays [the JPEC director’s] salary, plus a good chunk
of a couple of other salaries, as well. The college provides matching funds on the SBDC side, as well as some salaries. So it’s a combination of funds that pay for…we do not receive any general funding from the college. It all comes from economic funds or other funds.

President A added that, “There were gifts from John Pappajohn that funded some of the capital investments, particularly in an expansion of the facilities to accommodate a Center later in its history.” The operational budget, however, while it did involve some money from John, it also involved “…revenues generated by the center itself—and don’t overlook the critical role that the foundation played out of Kansas City; it was the Kauffman Foundation.” He attributed the JPEC’s early ability “…to do specific things and to conduct specific educational efforts,” to the funding received from the Kauffman Foundation—as it was “…a big part of our early operating budget.”

However, John Pappajohn explained that “…what happened was a million dollars doesn’t go around very far, and they needed money every year. So I made a commitment; so I give a million dollars every year to split between the five schools, and then they raise their own money. They increase the budget and the school helps, [but] each one works its own plan.” He then discussed how his annual, one-million-dollar commitment was distributed.

Iowa gets 250 [$250,000] a year, Iowa State gets 250 [$250,000], UNI gets 150 [$150,000], Mason City NIACC gets 150 [$150,000], and Drake gets a smaller amount…I think they get 100 [$100,000]—they were not as active early. It took them a while longer to get started, but they’re all doing well [at] the present time.

Today, each of Iowa’s five JPECs have a much larger operating budget, in comparison to their initial funding. As stated by John Pappajohn, “Budgets at Iowa are multi-millions right now. And we started out with a million, and the budget was $500,000 a year, probably, so…big,
big difference—all of these, though.” He then added, “So you could ask the question of how big is their [each JPEC’s] operating budget at the present time…and they’re all different—they’re all different.” Throughout the discussions with participants, it was evident that “They all raise their money different ways” and that the structure of each JPEC is unique.

**Education**

Another prominent theme identified throughout the interviews was that of education. The JPEC at NIACC provides guidance and support for business development, but they additionally offer credit and non-credit educational opportunities that focus on entrepreneurship. Director D stated that “…the biggest thing was we started out with a foundation of education. We had a college class that was being taught, we had our community outreach with Kauffman FastTrack program, and then we had the high school summer academy.” Within the theme of education there were four subthemes: Integration, Curriculum, K12 Extension, and Continuous Learning.

**Integration**

To establish an academic foundation for the JPEC, as well as greater leadership, Director A “…worked with people in the college in the business school program, and we developed three academic courses that I started teaching in the academic program.” Along with course development “we built an advisory council…so I went around and built an advisory council for the center. So those were probably the three main, or three or four main things we did in my short time at NIACC.”

At the community college, as noted by Director B,

There was certainly a period of [us] needing to understand and figure out how to integrate a fast-moving entrepreneurship center; it took a few years; now it's understood. There's an entrepreneurship certificate, there's an entrepreneurship
diploma, there are entrepreneurship scholarships…that's all deeply embedded. But early on, it took time. That did not happen overnight.

Director C specifically addressed the integration of the JPEC within NIACC’s existing structure, and the importance of integrating other parts of the campus into the organization they were creating. As a result, “the training areas of the college do a lot of work for us, and we engaged them in many of our projects and created some other programs.” For example, “we created a sales training program that we then gave off to the training side of the college to implement. So yah, wow (laughing)...lots and lots of activities.”

Since the “mentality” of the JPEC, as identified by President B, was one of “grow your own, our time’s best to help existing industries expand and grow new businesses from the region, rather than from our center and recruit from outside.” The result was a tight “crossover” between the JPEC and the students enrolled in entrepreneurship coursework at NIACC. President B expressed that,

The interesting part of entrepreneurship is [that] on the street, people don’t know what it is. So what happens is we get students in regular business classes, because they enter what they think business is going to be, and they really start to find out about running your own business and the opportunities. And we have to support their growth and their opportunities to explore that. So those credit students often times then are referred to the center with an idea that they have.

Throughout the interviews the participants mentioned the growing presence of entrepreneurship across NIACC’s campus, and a deeper integration of entrepreneurial concepts and education within more academic disciplines. This has positively resulted in an expansion of educational opportunities related to entrepreneurship at all five JPECs.
Curriculum

President A recognized John Pappajohn as “…a prime proponent of entrepreneurial education. He saw the potential for entrepreneurial development throughout the state of Iowa on a much greater scale than I had ever imagined, and he started to communicate that on the larger statewide stint. It aligned wonderfully with our interest and ideas. John Pappajohn then spoke to the education that is gained from utilizing the JPEC,

I think you learn the ABCs of how to start and manage a business. That’s what you really learn. And the confidence…you need enough confidence that it helps you to go out and start a business—confidence is very important. And the PMA—the ‘positive mental attitude.’ People get that when they feel confident that they know a lot more than they need, and they have enough ability to go on out and get something.

At the beginning of development, President A stated that although “…there was interest and a plan and some activity to create [entrepreneurship] programming, I don’t know if you would call it a center.” He explained that,

The way the continuing education system works at the college, or at least community colleges, when somebody had a good idea we’d try to get in a position to offer courses and various kinds of endeavors. People would sign up and pay tuition to help pay for those things, so that activity pre-dated the entrepreneurial center with John.

Director B considered the development and integration of entrepreneurship credit courses to be “an ‘evolutionary process,’” and that “it took some time to integrate the whole entrepreneurship mindset into the for-credit side of the college.” At the very beginning of the JPEC, he said that, “There would have been a level of discrete, separate courses, but no actual entrepreneurship program. I think that…a student could take courses. But now, you take courses in a certain sequence to a certain purpose to a certain end.”
Although this collaboration between the JPEC and the faculty at NIACC allowed for a deeper enrichment of the entrepreneurship curriculum, Director D stated that this needed to begin with faculty input. He emphasized the need to “Find out what faculty across campus want from entrepreneurship,” and considered this to be an on-going area of opportunity for the JPEC. Director A continued this thought stating that, “I think on the inside what you're trying to do is get the faculty there, and the students to be exposed to the concept of entrepreneurship innovation. I think if you can do that, you've made some real progress.”

During the JPEC’s early implementation efforts, Director A recalled the involvement of the faculty with the JPEC’s offerings. He stated that “On the non-credit side we did FastTrac,” which is a program that provides “training that equips aspiring and established entrepreneurs with the business skills and insights, tools, resources, and peer networks necessary to start and grow successful businesses” (Kauffman, 2017). This program was launched in 1993 by the Kauffman Foundation, for which “we had a couple of the faculty involved. As that program was expanding, we got some of them to come in and help in the instructional side of things.” He also noted the assistance that he received from faculty while developing coursework and mentioned that,

They helped me…gave me insight, because I had been used to working at a university, but not at a community college. So, developing classes for freshman and sophomores is different than juniors, seniors, and graduate students. I got some good advice and counsel on some of the structure of the classes, appropriateness, what's the right model, et cetera, for community college students. And also, they helped me get connected to people in the community because I was brand new to Mason City. I had never lived there, so I leaned on those people to help tell me who's influential, and make introductions for me as I started developing my network out there.
Presently, the entrepreneurship courses are taught by a previous JPEC director at NIACC, so there is a unique connection between the curriculum and the JPEC. Director D characterized the current instructor as “…very capable and an entrepreneur himself—so they’re in very capable hands.” While “…a lot of them are just trying to figure out what this whole entrepreneurship thing really is,” for those students who become “more advanced and really have something,” the instructor “gets them down here to work with us.”

President B explained that the JPEC offers “…credit entrepreneurship classes on campus, as well as in some of our high schools; we’ve been involved in developing that curriculum and we delivered it not only here, but we deliver it in some higher institutions around the state…our curriculum. So, it’s linked [the JPEC and entrepreneurial education]. He added that, “My current courses I teach are entrepreneurship and business courses” and that it was “…a nice integration now with the center.” When initially developing the for-credit coursework for the JPEC, Director A stated that,

I really wanted it to be classes that could articulate in the university. I really was working on creating courses that would be acceptable to Iowa or Iowa State or UNI for our students that were four-year bound—making sure it had the rigor that the universities would accept directly into their program.

Today, as described by Director D, the current offerings of the JPEC include credit and non-credit opportunities, such as “…a certificate and two-year degree program in entrepreneurship. We have certificates and then we have continuing ed classes—so we have both; so the academic is through the Business Division and then non-credit is through the Pappajohn Center.”

For community colleges wanting to implement an entrepreneurial center, or to incorporate more entrepreneurship coursework into their current campus structure, Director B
suggested that, “You can start at the course level, set up three courses, six courses, nine courses, 12…or whatever the program is. Then, find somebody who can do it and embed it like that.”

He felt that that approach had worked “pretty well” for NIACC, and that “all these years later…students understand that.” He gave the following example,

You'll say, ‘So, what are you studying?’ ‘Well, I'm going to get my entrepreneurship certificate,’ or ‘I'm going to get my entrepreneurship diploma.’ They have a pretty darn good sense of what their steps are and that's powerful, because I think that's what institutions want. They want students who understand the path, and can get through it.

President A also noted that, “Some of the fastest moving experimental…dare I say entrepreneurial…efforts are done through continuing education—sort of as an aside to the credit academic program.” However, he did indicate that,

…In this case, there was probably pretty good cooperation. Perhaps a little tension now and then, but it was a healthy tension. I know there were some entrepreneurial courses offered for credit from early on and that developed into a certificate program, if not a degree program…I don’t think it ever became a full Associate Degree thing on its own, but there were certainly entrepreneurial emphases that were available to students from a wide variety of career fields that were studying at the college.

President A attributed the JPEC’s successful execution of “good ideas” to the fact that they “…hired good people and they had an educational agenda. They were trying to plan and organize and deliver educational experiences. Around those educational experiences grew some outreach efforts to young people, as well as middle school.”

**K12 Extension**

To provide younger students with similar exposure to entrepreneurship, educational outreach programs were developed between the JPEC and area schools. John Pappajohn stated
that, “We’ve created this wonderful entrepreneurial environment in the state of Iowa… I think it’s just fabulous. And there’s so many other organizations that have started as a result of this interest in entrepreneurialism and business—wonderful.” He also noted that,

What they’ve done now is so great because in the summer they have school for junior high kids and grade school kids, so the schools [are] teaching them that there is an alternative to getting a job. [They] can start a business… and I think it’s just fabulous.

Director C discussed a specific program created and trademarked by the JPEC, called “Entrepreneur for a Day” or “E4D.” He described the program as,

... A 5th grade program that we built the curriculum around playdoh—the playdoh economics… free curriculum that we built. And we utilize it as the base, but we go the full-blown curriculum that meets any built-in requirements that are needed in the grade schools by the individual districts. We’ve deployed that throughout North Iowa in all of the communities in North Iowa—over 2,000 5th graders that get educated now, and was an ‘entrepreneur.’ They spend some time in their place in school, and they all come to NIACC for a day. They create a business and they compete in their business and they learn how to market, and their finances… they have to be an entrepreneur.

President B also added that the JPEC offers junior high classes, as well as “some high school work.” Director D also mentioned that, “We have a 5th grade program that does some great things for financial literacy for kids and also introduces 5th graders to the community college system and what we do—and what we don’t do.”

Director C emphasized the need to “look across the country” when developing new programs. He stated that,

The Entrepreneur for a Day program had its genesis in an inner city program for inner city kids that we saw, and thought this is something we can take and evolve and work in
rural Iowa. Well, as we developed it, we needed to get an educator, so we hired an educator who actually wrote the program…so it would be attractive to other educators; I mean, a business guy can’t write an education program. But, we hired this person and they wrote it, and they were our first administrator of it, and we now have another one who drives it now. And now that it’s all done, we continue to even have those folks come down. People that have used the program in their schools, they get together once a year and visit about the program.

Continuous Learning

When preparing for an entrepreneurial endeavor, John Pappajohn said the ultimate question to ask yourself is, “So…have you learned enough? Have you learned enough to be able to manage and build a business…and provide all of the wherewithal that it takes in order to be successful?” However, Director C noted that, “There’s always things that you could learn.” Even for the leaders of the JPEC, he stressed that “It’s important, always, to continue to be educated, and you do that by attending conferences.” He stated that,

We’ve done tons of conferences where we’ve been the lecturers or held the seminars, but we also go to these because people are inventing stuff all over, and coming up with new ways to do it—you have to stay current.

Director D supported the need for continuous learning on the part of an entrepreneurial center leader, in addition to professional development. As such, he has been a member of the National Association of Community Colleges for Entrepreneurship since its inception in 2002, stating that, “It’s just like any professional development—you always want to look at what’s cutting edge.” And although Director C attests that “…NIACC is the best overall,” he also stated,
That doesn’t mean that we do it all right or can’t improve and can’t do something more. So the day that NIACC quits looking and inventing new programs will be the beginning of the end of the JPEC at NIACC. It’s the same thing with a business. If you’re not growing, you’re going backwards—there’s no staying still. That’s my philosophy, and that’s the way I governed and ran the entrepreneurship center at NIACC.

He also recognized that, “You just never know when that entrepreneurial bug is truly going to kick in.” Therefore, he indicated that the JPEC curriculum and educational opportunities were designed to “…lay a really, really good foundation for those students to succeed at wherever they go—whether it’s a four-year regents or privates, or if they go and take a job.” He further attested that “NIACC students do very well regardless of what program they’re in. We’re one of the best…we’re named the 14th best community college in the country.”

From the very beginning, education was considered to be the foundation of the JPEC at NIACC. Therefore, integration of entrepreneurship across NIACC’s campus was a primary objective of the JPEC. Also of importance was the need to establish a curriculum in collaboration with faculty members, that would meet the needs of the region and appeal to NIACC’s students. The JPEC also extended educational programs to the surrounding K12 system, which allowed for early exposure of entrepreneurial concepts to younger students.

Lastly, the participants emphasized the importance of continuous learning for EC leaders, given the dynamic nature of entrepreneurship and their need to remain current within the field.

Leadership

A significant theme throughout the transcriptions was leadership, which included the subthemes of: Mission, Advisory Board, and Stakeholders. The emphasis on employing great leadership also served as a reflection of the roles held by the participants, since each participant
was purposefully selected based upon their leadership role in the JPEC’s development. As a leader of NIACC, President A stated,

I saw the merit in the economic development impact of an entrepreneurial center at the college and I tried to help, but I think a lot of other people helped, too. Certainly the early leadership of the Pappajohn Center deserves a lot of credit for creating the conceptual plan, and a lot of those early activities that we did to train young people, or to educate young people…[it] led to bigger and bigger ideas, and more and more services, that actually created the center as we see it today.

However, in the role of college president, President A considered himself to be slightly distanced from the central happenings of the JPEC. He stated,

Keep in mind that my job as the president was to listen to a good idea, agree with it, and try to get behind it…I really didn’t see myself as the entrepreneurial expert, certainly, and I didn’t try to be. I was simply there trying to make it possible for people who did have that expertise to build it into a service for the people of the region.

The critical nature that leadership played within NIACC’s JPEC was evident. According to Director A, “the key is you got to get the right person—number one.” He explained that,

I believe you have to have a leader that is high energy, passionate, has done this before, and can effectively work and straddle the academic world and the business world. But what I've seen go wrong at other entrepreneurial centers is when they put in pure academics, or they put in pure business people, and they couldn't work in both worlds…so it starts with the director.

Director C added that, “The worst thing you can do is hire a bunch of people that don’t have the experience, and give them the idea that they can become a consultant. They just can’t
do it.” He was adamant that, “They have to have a background in business to be successful consulting in this region, in my opinion.”

While Director C was insistent on having the proper leaders in place, he also stressed the importance of each leader clearly understanding their role—or perhaps, knowing what is not their role. For example, he clarified that,

We are not economic developers. Now, I always said to the economic developers, we’re support agents…we’ll come in there, we’ll help you assess, we’ll see where the needs are, and we’ll help bring the resources there that your businesses need.

This thought was also supported by Director D in stating, “Don’t try to be all things to all people.” Having a clear vision and understanding of the role of the JPEC contributed to its successful development and implementation at NIACC. Director B attributed much of this success to the leadership of NIACC’s president and vice-president at the time of implementation. He stated that,

I think their primary role was vision…that this would be good for the college and good for the region. They were the kind of leaders who brought specific help with ideas on how to do programs, [and] helped put the resources toward it. They were idea people and also implementers…they were the energy.

Collectively, the respondents considered John Pappajohn to be the leader that ultimately made the JPEC at NIACC possible, due to his financial contributions, experienced direction, and support. President A stated that,

John was a key player in that he provided the political support for the center, the financial support for the center, and much guidance as we ran into issues and questions, and things. I think he was a regular player in terms of…he and people around him in his
organization were offering much advice and insights into how one goes about developing entrepreneurs.

As far as the overall success of the JPEC, President A stated that, “We all made our best effort, you know, is all I can say.” Director D significantly added to that thought as follows,

Well, I think it’s the lineage of the leadership successions. President A, obviously, he had a very strong acumen for economic development—something he had a lot of passion for. And [the first] Director created the very good foundation of the educational programs and the grant programs...[that] he was able to access with the Kauffman foundation. And remnants of those programs still exist today. [The next] Director came in; he really helped build...you know, he and I jointly worked on the future mission statement...or the current business model that [the JPEC] operates on today. And then, the next Director and I really expanded a lot of additional areas, adding youth entrepreneurship with our Entrepreneur for a Day program...and I carried out the creation of the North Iowa venture capital fund, and that Director had a big part in raising funds for that fund...and the second North Iowa venture capital fund that was created. So, it’s really been...each director has had a very nice impact, and each of them made their own unique differences along the way. I’ve been here for the longest, but it’s really been a team effort.

Mission

In terms of the JPEC’s mission at NIACC, Director D gives a lot of credit to Director B for its creation, noting that,

He was very formative in coming up with—kind of redirecting—when we came up with our new mission statement and focus. So, those... [pointing at the framed documents on the wall] are still from what Director B and I worked on together.
These two individuals collaboratively revised the JPEC’s mission to clarify the role of the JPEC and that of NIACC’s Business Division, since both were providing education related to entrepreneurship. At the time of revision, the JPEC’s acting director was Director D, while Director B had moved into a faculty position for entrepreneurship instruction. Director D stated that “We knew we each couldn’t have education at our forefront.”

Director B discussed the development of the JPEC’s mission and the acquired “…input from a number of people,” including the advisory board “…and really asking community members and other entrepreneurial support types what they viewed the mission of the Pappajohn Center to be.” He felt that “That was a pretty inclusive—and, I thought, impressive—approach to take as far as developing the next step for the mission statement.” As Director D indicated,

There’s probably about a couple dozen now in the country that have a comprehensive mission—as comprehensive a mission as what we do here at NIACC. Even today, you know, we are a comprehensive center—where we do education and economic development outreach—so that’s still unique. Most community colleges solely focus on the education side with the students and they don’t get as involved…they do one or the other; either they’re community outreach or they’re internal.

Unlike most entrepreneurial centers, the resulting three-part mission statement for NIACC’s JPEC was, and is, comprehensive. As stated, “The NIACC John Pappajohn Entrepreneurial Center seeks to enhance the quality of life through:

Entrepreneurship education, teaching skills to maximize the likelihood of entrepreneurial success; entrepreneur and business support, helping businesses launch and thrive in a dynamic environment; and partnerships to stimulate entrepreneurship, working with others to leverage resources and maximize impact (NIACC, 2017i).
Advisory Board

In addition to establishing a mission and vision, the guidance of the advisory board and the stakeholders was considered a key component. John Pappajohn highlighted the role of the board at each of the JPECs, stating that,

Each one of the schools has their own boards and they’re responsible for guiding the school. They have the entrepreneurial center helping it to raise money and helping it to focus it in different directions.

President B explained that the advisory committee meets approximately 10 times a year “and they shape our work and they inform our communities.” He similarly described the inclusion of the board, stating that it is “…built from the region from different advanced manufacturing sectors, business sectors, economic developers…so that we can hear the voice of the region. During the board meetings, Director D shared, “We try to get into a discussion topic—something we need to work on, or something that’s of interest to us, or a problem we’re having—and try to get input. But what we try to truly do is…broaden knowledge of our advisory board to help guide us.”

Director C addressed the membership of the board, stating,

…We have successful business people, key political leaders, people from the business community—including the chambers. There’s always representatives from something like that, or the economic development corporations—they always have someone from our region…so all those people.

While John Pappajohn is a member of the Board, his relationship with the Center is different from other Board members. Each of the participants elaborated upon this relationship. According to Director C, “John was a member of that, so we would create…we always sent out an agenda and a book…a board book.” Director C stated that although “John never
participated,” he was an important benefactor of the JPEC and needed to be informed, adding that,

…One of the things, as a benefactor…you need to keep your benefactors fully informed. He was a member of our Pappajohn Entrepreneurial Center board—but he never came—but we always sent him our board agendas in advance.

Director C stated that, “In the board book, it would have lots of information about our stats, and I created all that, so he kept informed that way.” He expanded upon his communications with John Pappajohn and discussed his approach for doing so,

I also sent him regular updates, and when we were working down a path, I would send him the information about it and ask if he had any input—and on occasion—he did. Mostly not…he would just congratulate us and thought it was a great idea. Sometimes he would introduce us to somebody. Or, if we needed help, we might ask him for help in an area and he would give us some introductions and some ideas that he may have that fit in the area. So, he was more ‘on call,’ if you will. He always took my calls—and he still takes my calls—and he was very receptive and engaged as much as we wanted him to be. But he didn’t want to have veto power.

Director D further discussed the board books, stating that, “They’re not word-by-word minutes from our meetings, but you get a sense for the topics we’re trying to discuss…they’ll give you a flavor of the issues.” He continued with the following,

We always try to start out with a success story…entrepreneurial success story. Then we have a couple updates, a number of reports that we report on—SBDC report, business accelerator report, and then local stories. We put a lot of NIACC articles in there that we think they may have missed and we want them to know about.
In the event that specific direction or input was needed from John Pappajohn, President B stated,

…We forward him questions, problems, progress, challenges, on a regular basis to get his feedback. So that’s kind of what we try to do…is just really keep in regular contact with him. We attempt to make contact with John on a regular basis, not only to support the center, but he’s arguably our most successful graduate—right?

However, Director D recognized the fact that “John’s a knowledge seeker and he reads everything he gets his hands on…so he knows exactly what we’re doing. We all have quarterly annual reports that we put out, so he’s very into what’s going on.” He was also mindful that as someone in a position such as John Pappajohn’s, “…you never want to continue to fund the centers if you truly weren’t meeting or exceeding his expectations.”

Director D addressed the autonomous nature of the JPEC that allowed it to be self-sufficient, and therefore operationally untethered to John Pappajohn, stating that,

John set [the JPECs] up to be somewhat competitive, but really autonomous from John’s input. John will let us know when we’re doing a good job and if he has ideas or finds articles he thinks are interesting, but John is not involved in the day-to-day operations.

In speaking with John Pappajohn, he addressed his board meeting attendance and JPEC involvement, stating that, “I like to keep in touch. I’m on the boards of NIACC, and…I’m not very good at attending meetings. Sometimes I’m on the phone, sometimes I just have too much going on…and they really don’t need me.” He also added that,

Well, probably, my role was more active back when I got started, than I am at the present time. They don’t need me today. And they have organizations—and they do a great job. I have discussions with them anytime they have a question. I try to help with some of their companies that they try to finance. In other words, it’s a partnership
relationship with each of them whenever they want help—but if they don’t need the help—they don’t have to call me. They can do their own thing now.

Stakeholders

The most commonly mentioned stakeholders were as follows: the NIACC advisory board and college leaders; the community, including residents, businesses, entrepreneurs, and economic developers; and, of course, John Pappajohn.

Director A addressed both internal and external stakeholders. “On the inside of the organization” he named stakeholders, such as, “…the president, the chief academic officer, the head of continuing ed…the head of the college of the business school, and then the foundation guy.” As for externally, he felt that,

…It really was community leaders—and each community was a little bit different—but that could be…the local economic developer, that could be the chamber person, and often case, they were the same. Then when I was up there, the mayor, key and big bankers, and then some of the successful entrepreneurs. That's where I focused.

Director B and Director C both recognized the community and local residents as important stakeholders. Director B added that, “there’s no question that growing and creating people to start new businesses has an impact on the economic development of the community at large across the region.”

Director D discussed the significant role of the JPEC’s advisory board, stating that, “If I think about stakeholders, I’ll reflect on our advisory board. You know…who sits on that—economic developers, chambers, bankers, community leaders, entrepreneurs, K12 system…I think those are our main stakeholders that we have.” Director B similarly responded with the following,
Well, because we’re in a community college, it’s certainly our communities and our citizens of North Iowa. You know, we’re a publically owned community college and the board members are elected from nine regions in North Iowa. So, certainly one constituency is the board, right?

As mentioned throughout the interviews, another primary stakeholder of the JPEC was considered to be the local community. As President B stated,

We’re a community college…it really is the community. The stakeholders are those who use the center, are able to talk about the difference it’s made, and you can find stories in many of our successful businesses in North Iowa. I think we’ve helped over 400 businesses…so those stakeholders that understand it—the community, the economic developers, the city, the county.

Director B and Director C also acknowledged the students of NIACC as stakeholders, and further emphasized the importance of local businesses. He stated that,

One constituency is the businesses in North Iowa—all of the businesses in North Iowa. Another constituency is the banks—we work very closely with the banks. They would send people to us to help them develop their business plan before they were going to consider giving them any money, so they’re a constituency of ours. So there’s a variety of constituencies. Certainly economic development folks are constituents of ours.

President B responded with reference to city funding that the JPEC receives, stating that, “We do get a small city contribution and have had city and county dollars in the pot, but it’s not our thing; on the front end, they had some start-up.” He then mentioned that “…there’s lots of different tentacles,” including “…a micro loan that the city manages that allows us to help small businesses downtown,” and an investor club that he referred to as “our investor ‘rain fund,’ if you will, for capital investment…those would all be stakeholders in it.”
When asked about the JPEC’s stakeholders, President A indicated that “…my perception then, and I think it’s probably true [even] now, is certainly the College has a major ownership interest in the center.” More specifically, “The people who lead it certainly have a great deal of investment.” He then addressed stakeholders that had not been previously mentioned in detail, stating that,

I think a constituency that is easy to overlook are entrepreneurs that are all around the region that have had some contact, involvement…some of it may be brief or superficial, but a lot of it was pretty extensive. I think those people look toward the college and the center to create a setting where they can come together and discuss their mutual interests and needs, so I’d regard them as stakeholders.

President A then mentioned one final stakeholder, asserting that, “Certainly John Pappajohn remains keenly interested in entrepreneurial development in Iowa—I’m sure. Throughout my time there, he was certainly a stakeholder.” After speaking with the participants, it was clear that the JPEC’s development and implementation was the result of a team, and not by any one individual. The respondents frequently gave credit to their fellow colleagues, but most especially, to the contributions of John Pappajohn.

Measuring Success

In relation to the theme of measuring success, there were two subthemes: Establish Metrics and Business Development. As an introduction, John Pappajohn stated that he considers a successful entrepreneurship center to be “…a center that teaches their students, or members, how to run a business, how to start a business, how to manage it, how to create sales, how to manage the books—all of those things.” In defining the metrics for the JPEC—although he hated to use numbers—John Pappajohn noted that “numbers are important.” He specifically mentioned the need to measure the following Center aspects,
How many businesses have they opened, are they successful, and are the students getting the right kind of training so they can be successful? And, do they help them beyond just the idea? In other words, is there help to help them to become successful? Ultimately, that’s what success is…it’s people that start businesses and that make money and survive. It creates employment.

Establish Metrics

As explained by Director D, “John started asking us for three key metrics: how many new businesses started, how many jobs did those create, and what were the total number of program participants.” He later added that “…probably the other one is access to capital—how much are our businesses able to acquire, and debt equity financing.” Director A expanded upon these foundational metrics and added the following information,

So, there is A) how many companies got started? How many of those companies are still in business? How many jobs have been created? How much money did they raise…outside money did they raise? And then looking at the impact of whatever the product or service. That's a fairly tangible thing to measure, okay. The tricky part, I think, is the mindset. How did you influence a person’s thinking about their career and how they're becoming better workers or employees of a company; B) We always measure number of students in a class, the type of students, how many different majors are involved in programs, how many graduate, how many get internships with start-ups, how many stay in the state with companies we’ve helped them get connected to, and how many became entrepreneurs later in their life. [Meaning] that they may not have started a company when they're in college, but now they have become entrepreneurs. We also try to get a sense of, from them, how the entrepreneurial education has impacted their career paths. Again, that's kind of their anecdotal survey, but it's still their opinions on
how they believe it’s helped them position themselves for success inside the organization; and C) I think the other way sometimes you can measure, frankly, is what kind of resources and the size and type, [and] the size and the scope of the program you developed? And what kind of footprint do you have on your university or college campus? Are you campus-wide or are you just in the College of Business? Are you involved in tech commercialization? Have you brought more money to the table on launched student programs and initiatives—whether it’s at the college or at the community level? But what else are you doing to advance entrepreneurship and innovation across your campus and across your region? Those are kind of the three different areas of focus. And I would think you could do a similar thing at a community college.

Overall, the abovementioned were the key areas of interest for John Pappajohn, but Director C noted quite a few additional considerations for measuring the success of an entrepreneurship center,

John had three criteria for his input into all of our centers: new business starts, number of employees, and how many got educated by us…or how many contacts did we have. So those were three that were there that we reported to him. We started tracking that on a weekly and monthly basis, but we added a number of other metrics. For instance, how much money did we provide to companies, either directly or indirectly, that we helped get loans and funding or equity—like venture capital fund money or grants…we started tracking those things. We tracked all the number of people that came through our doors, all the number of people that we educated—either at the college, or in communities where we held educational seminars for businesses or the communities on how they’re
going to become more entrepreneurial—so, wow, it’s a lot of stuff that you have to do if you want to be a fully integrated site.

For Director C, the key to establishing the JPEC’s metrics was to begin by “…creating the vision,” followed by “…creating the metrics that would support the vision of where you want to be—and tracking those metrics and reporting on those metrics to make sure that you’re actually accomplishing what your goals were.” To determine this, “…we check back and see how well our customers or clients were doing that started businesses. We found, and we understood from the results, that we were actually making a difference—especially with our clients.” In the end, he felt that “…that’s one of the most important things—are businesses that get started, or get help from you…are they having success, and how do you measure success. I mean, are they still in business in a few years?”

As a secondary goal, Director C worked to keep businesses in Iowa “by presenting alternatives to those potentially leaving the area.” He noted that sometimes they would choose to stay in Iowa “…and sometimes they wouldn’t…and sometimes they’d go down a different track.”

When Director A was asked to identify the best measures of success for an entrepreneurship center, his response was, “I would say…it’s two-fold.” He explained it as,

One is the number of people that went through our training program that actually started businesses and made it. I can actually run a workshop or a continuing ed program and not really know if it’s gonna make a difference, other than ‘oh, that was interesting.’

On the community side, you could probably count…if you look at the businesses that have started, the businesses that have grown and prospered, the jobs it created, the amount of new products and services that are offered in the community—so a better quality of life, and the development of the angel network that those guys have done—
they provide access to capital and really transformed the mindset up there of getting people to see themselves as investors, and trying to continue to look for innovation-based opportunities, not just old, traditional, basic manufacturing, ag, or something like that. That's what I would say on the outside.

Director B shared the same sentiment that the JPEC metrics needed to be greater than just counting participants. Rather, he noted that the real success of the center was defined by the actual entrepreneurial activity that it created. He stated that, “It is pretty fun to see the number of people who have at least gone through some entrepreneurship training,” but we also “…did some counting of who's going through, and we tried to track who's starting new businesses.”

Director B felt that an important aspect of metrics is “keeping score,” recommending that ECs, Do a good job of keeping score of who you impact because that's a huge part of your story later. People are going to want to know how many people have been through? How many jobs were out there? How much revenue? How much tax dollars? That's still one of the biggest questions people ask, so I think set up score-keeping quickly.

Director C realized the importance of having a means for measuring the JPEC's success, and considered it “…critical that you have some sort of a metric-driven organization that makes sure that you’re meeting them.” He also understood that, dependent upon the entrepreneurial center, “…those metrics are different.” For example, President B stated that,

When you think about the small business development center network, we would argue that our metrics are better than even Cedar Rapids. Now, they count, I think, every phone call they took; our people would question their metrics. But if you just look geographically and demographically at our information, you’ll see the impact the Pappajohn Center has—and blowing up those metrics, as well. So, we don’t spend a lot of time trying to decide who gets credit for it. We do it collectively and all take credit.
Director C also explained that although “…we ran it like a business,” since it was designated as not-for-profit, the JPEC’s success was measured by metrics, as opposed to a profit-and-loss statement. He continued his thoughts related to measuring the success of the JPEC, as follows,

We were all business people. So, when I first came in there…when you run an entrepreneurial center, and it’s a not-for-profit, right, and you don’t have income coming in…when you’re from the business world, you measure it on a P&L—profit-and-loss statement every month. You measure sales and you measure expenses and you see your net income…and you see your growth. One of the things I did both at the entrepreneurship center, but also with advancement of the foundation, I sat down with my team and we had a strategic planning session and created—you know, we knew where we wanted to go—and we created metrics against that; metrics we could track every month and had to report in on those metrics. That was my profit-and-loss statement for the entrepreneurship center.

President B indicated that the measures for determining the JPEC’s success were an ongoing discussion, stating that, “We’ve worked and talked at length about this,” but he agreed with Director D that,

…One of the things that’s unique about our center and the metrics we use is we’ve used the SBDC metrics. Because we work so closely together our metrics are their metrics, and vice versa. So, we measure that in clients served, businesses started, jobs created, capital investment…and then, students enrolled; we use all those metrics to do that. But the ones that I probably value the most are those first ones that we jointly do with the SBDC, and that’s clients served, capital investment, jobs created—right…and long-term success of those businesses.
Furthermore, President B stated that, “As part of that SBDC process, we have to provide those annual metrics to the state—to the legislature,” but that the JPEC also measures “beyond those basic metrics” and that “the center has their own strategic plan and they create the metrics each year.” The metrics are reviewed annually “as part of the director’s evaluation each year. He brings the new strategic plan or strategic priorities for the year, and then the metrics at the end of the year.” Additionally, the college president meets with the JPEC’s director “…every six weeks, at a minimum, and continue to look at the challenges and the successes of the metrics that they’re using to measure their own success.”

Director D expressed how proud he was of the partnership between the JPEC and the Small Business Development Center. He stated that, “They’re a key resource for us and we work with our entrepreneurs seamlessly…able to do things that just an entrepreneurship center can’t do—and just a SBDC can’t do. He also noted that a distinct aspect of the JPEC’s relationship with the SBDC is the use of shared metrics, stating that,

Today, we have completely shared metrics and we’re a very cohesive partnership collaboration with the Small Business Development Center. And from that, you see that our metrics, for our size of a rural area, keep up with that of Des Moines, Cedar Rapids, Cedar Falls, Iowa City area…our metrics are very aggressive.

In the future, Director B stated that, “It would be fun to get some really longitudinal, longer-run matching information; you could take that way to the n\textsuperscript{th} degree.” He also thought that “It would be cool to get the second generation at some point, too, if some of these businesses make it to next gen.” President B also expressed an interest in gathering longitudinal statistics on the businesses that have utilized the JPEC, “…to go back to businesses that have used our services; up and running, where are they three to five years from now?” He stated that,
We haven’t done a great job of capturing that data, but that’s another piece that we want to see…what’s the longevity of those businesses that we’ve helped? I think you just paint a clearer picture about the overall impact of the center over 20 years.

Ultimately, as expressed by Director C, it is most vital that the JPEC hits its “hot button,” stating that,

John…if he’s not getting the results that he wants—new business starts, number of employees, and number of people being educated and supported in entrepreneurship—he’s not going to help. He has his metrics, and as recipients of his philanthropy, you need to be able to respond and make sure you’re hitting your hot button…And he’s very proud of us because of all the activities that we took on, out of a little tiny community college. Nobody in the nation does what we do—nobody—to the extent that we do it.

**Business Development**

As reflected by President B, “Our success comes through the result of having successful start-up companies.” He stressed the importance of “…a community college being tuned into what your community’s needs and wants are, and try and help address them. And listen to our entrepreneurs and find out what issues they’re having. And how effective are we at taking somebody from an idea to creating a business…and how sustainable are they?” President A suggested that,

If you look back in the history of North Iowa, there are businesses like Sukup Manufacturing or Winnebago Industries. I know there’s dozens and dozens of others that were started by people that had an idea and the courage to create a business and take a huge risk, and we were simply wanting to offer people as much help as we could as a college—to make informed or wise choices. If they made a choice to try it, then we wanted to be as much help to them as we could be to ensure their success.
The JPEC plays a special role in the development of local, small businesses “…trying to help our main streets be more successful and be more vibrant.” Director D stated that another intent of the JPEC is to “…help people stay in business instead of closing their doors, or help them have an effective succession plan to sell a business, or have the succession plan to family members.” He noted that, “When a business closes, while we don’t work with every new business in town or in our region, we try to figure out why that is. And if somebody is struggling to keep their doors open, we’re all-in to help them…to make a difference.”

Director C stated that, “Today—and I’m happy to say—that we have businesses that have been successfully developed with support from the NIACC JPEC, that are giving back to the NIACC JPEC and to the college.”

However, while the JPEC has experienced many successes with business development, not all businesses will succeed, and not all business ideas will be actualized, which is not necessarily a bad thing, according to President A. One of the early observations he made was that,

Some people who participated in our early educational efforts realized that their idea wasn’t so grand after all, and, perhaps, it wasn’t all that workable. So if they choose not to blow their life savings on a failed endeavor to create a business, that has a positive economic impact in a region, as well as those who started businesses and were able to add employees and grow significantly.

Overall, President A felt that while “…the numbers of jobs and dollars” that the JPEC generated had a significant impact on the region, he noted that “failures avoided—either by not starting a doomed business, or by succeeding in a business that might have otherwise floundered,” was equally important. Simply stated, President B identified the greatest accomplishment of the JPEC as “…the people we’ve helped. The examples of people who have
taken over companies, built companies, built businesses from the ground up with our support, those are our greatest accomplishments—hands down. That’s the results that matter.”

When President A was asked about his proudest accomplishment related to the JPEC, he light-heartedly replied with, “Well…it’s still there,” but also stated that,

I’d like to think there have been a lot of individuals that have been at the center—either potential entrepreneurs or real entrepreneurs today—that have found some value in it. I think I can take a little pride in being…in trying to be a part of the overall effort that made that possible.

Director C stated that he was proud of all the awards that the JPEC had won “…because the awards were as a result of actual accomplishment…businesses getting started, jobs being created, businesses getting funded, students getting education, students starting little businesses in their schools and learning how to do that, and becoming self-sufficient—all these kinds of things.” Overall, the participants indicated that while there were numerous metrics collected and assessed, the ultimate measure of the JPEC’s success was the development and growth of actual businesses.

**Community Involvement**

Community involvement was an additional theme mentioned by the respondents, with resulting subthemes of: Meeting Needs, Outreach, and Collaborations. Director C stated that, for larger cities such as Des Moines, entrepreneurial resources may be more accessible. However, for smaller communities, “…if all these resources are an hour or two away, it makes it very difficult.” He was insistent that as a rural entrepreneurial center,

You’ve got to be in the location. You can’t ask everybody to drive two hours to Des Moines or Ames to get services…to get help. By doing that you defeat the rural
communities, so you have to have an organization that is dispersed, and in that dispersed area, has resources of its own that it can bring to you there.

As a result of how the JPEC was positioned—both within NIACC’s existing structure and the local community—President A attested, “It certainly has been enthusiastically embraced by a lot of people in and around the community throughout its time, which I suspect is still true today. So it’s been an uplifting, hope-building kind of a resource for our community.” Director A stated that “building those strong community partnerships…it just changes everything.

Because you can call if you need something…you can call somebody, and they’ll get it done for you,” and it also provides “opportunities for students—fundraising, et cetera.”

**Meeting Needs**

Within the rural service area of the JPEC, there are various entrepreneurial needs to be met. To meet this need, the goal of the JPEC was, according to Director C, “…to make all of North Iowa more entrepreneurial—including existing businesses, as well as new start-ups.” He recalled that, “We went out across all of North Iowa and visited with businesses to identify issues that they were facing and where the Pappajohn Center might be able to have an impact in.” Upon realization that “There weren’t very many new start-ups going, we were hopeful to create…but it may be called corporate entrepreneurship, or intra-entrepreneurship within existing businesses…teach them how to be entrepreneurial and grow.” He also stated that,

In order to do that, we created a very broad base, and we did that because we were in a more rural community. If we were in a Des Moines, you could focus and you could create probably separate organizations and focus more tubular or silo, but we decided that we didn’t want to have silos. We broke the silos down and went across campus. Director C also noted the importance of the learning environment, which required an awareness of “…what was being done elsewhere and spending time in our communities—
understanding what was needed, and assessing businesses and what they were looking for.” John Pappajohn mentioned that the expansion of the local community was a key benefit of the JPEC’s implementation, stating that,

Many of these businesses are started right in the community and they stay there, so they’re creating more economic activity. Many, many, many communities help raise money to keep businesses that are started at the colleges…to stay there in town—absolutely.”

Ultimately, as expressed by Director D, “Our entrepreneurs are really centered for what we do.” Therefore, on a weekly basis, the JPEC examines their client lists to determine “…who’s our active clients, who’s our current clients, what resources do they need, what do they want from us, what do they want us to help them with—and make sure we’re accomplishing that.”

**Outreach**

To successfully create “a new entrepreneurial economy,” Director D knew that “…we had to do outreach.” This also resulted in the JPEC becoming “…more of a community outreach center, versus strictly education. So while we do have the education programs, where our new business starts come from is our community outreach and outlying communities.”

Director D expressed how proud he was of the JPEC’s community outreach and the work that it does in the community. He noted that,

When we first started doing this, our economic developers could care less about entrepreneurship. We never want to be…well, actually, initially we thought we’d be the sole provider of entrepreneurship programming, and realized that we need everybody focused on entrepreneurship—all of our counties and all of our communities—in order for us to be successful. Today, many of them care as much about their entrepreneurial development as they do their business recruitment or retention.
He was also proud that, “We’re not only known for start-ups; we’re also known for helping existing businesses and businesses that are looking to do succession plans.” And while “…that’s not the bulk of our work, people come to us looking for services other than just start-up, and I think that says a lot for our business acumen and our customer service that we’re able to provide.”

Another aspect of the JPEC’s outreach includes entrepreneurship competitions and awards, made available by John Pappajohn. These opportunities are widely promoted throughout the state and beyond, and open to all aspiring entrepreneurs. He stated that,

The great thing about it is…a business competition we have has created so much activity. That’s why every year between 50 and 100 companies come to us and we have a business competition, which helps start real companies in the state, and I give money to the winners each year. We have business competitions for students, and we have business competitions for other companies out of the state, and I think I give $50,000 to the outside one. I give an extra $100,000, which the five people at the entrepreneurial centers use…they figure out how to use the money—the best way. I don’t even get involved in it.

Director C also mentioned the statewide business plan competition and added the following,

…It was our JPEC—my idea—that went to [John Pappajohn] and said we want to do [this]. I got the backing, or the support, from the other JPEC centers that they would do it with us, and I went and asked him for the funding, and he gave us $50,000 a year, plus more. And, we did that. At any rate, those were the kind of things…the interaction that we had.
Director D stated that while outreach efforts may seem overwhelming at the time of implementation, he indicated that this struggle typically becomes more manageable once the entrepreneurial center gains more experience. He described such as follows,

I think we are a more mature entrepreneurship center, so we know how to reach out in our community…partner with the right people in our community—economic developers, the chambers, the other entrepreneurs—to find out who is it that needs help. So, we’ve got a pretty solid pipeline of people in North Iowa needing help, and our metrics prove that.

Collaborations

Director D recalled when “John started asking us for three key metrics: how many new businesses started, how many jobs did those create, and what were the total number of program participants,” while the JPEC could quantify the number of program participants, reporting the number of new jobs was more difficult. He stated that, “Since we weren’t really sharing metrics with the SBDC at the time, we knew we really had to go down that route to really start stimulating new start-ups.” Eventually, “…that led to the development of a couple of initiatives. In time, we became much more integrated with the SBDC, so it was a win-win on both sides with the Pappajohn Center.” We also “…started seeing more high-growth companies come in, and the total number of clients started to increase.”

During this initial development, Director A was aware of the operations of the JPEC, and stated that, “What I tried to do was make sure I didn't come in and start duplicating services or programs that the existing SBDC did.” To accomplish this, he worked very closely with the director of the SBDC, who later became one of the JPEC’s instructors. Overall, he felt that the two of them had “…worked pretty well together on teaming-up to do programs, giving talks across the eight or nine county region, et cetera.”
Director C also expressed his dislike of duplicated efforts, which he attributed to his previous work in “the private sector,” recalling that “…networking and collaboration was something that I insisted on.” Furthermore, “…everyone else that I hired was from the private sector—we don’t like duplication of effort—not at the federal level, the state level, or the local level.” However, he then expressed that “our roots and our support” for the JPEC comes from the local community, noting that,

Therefore, when something needs to be done—when CIRAS wants to engage in a community—it’s easier and better if they work with the community colleges already there, and knows all the businesses, and has worked with all of them anyway…and engage together so we can leverage the support, versus having CIRAS come in and walk into a business and say we’ll help. It’s counterproductive.

President B considered the partnerships that the JPEC has with the local community an aspect that “…makes us unique, and probably [also] because of the community college nature.” He noted that “…there are partnerships that we do on a regular basis. Iowa State, UNI, and Iowa can kind of fly their own flag—and they do that. We’re just forced by economics to really partner more closely.” Director D stated that,

We’re competitive with the other Pappajohn centers…and partner with them on a number of programs. The Pappajohn Centers…we come together and run statewide competitions—we run student competitions, we came and did the anniversary of John…you know, all those things get the word out about who we’re helping and how we’re helping them, and the successes of these businesses.

As a longtime member of the NACCE organization, Director D recalled that, “We’ve tried a number of different programs with them and with our current team here…and we just
kind of know how to access and find the people who need some help.” He also mentioned that not every partnership with the JPEC has been fruitful, explaining that,

We had a partnership with the Small Business Development Center, but it really was—they do what they do, and we did what we did—even though they were housed in our same area. So I think myself and [Director B] really came up with the vision that we wanted to help drive economic development throughout the region.

Many additional collaborations with the JPEC were discussed by Director C, including programs and funding through the North Iowa Area Council of Governance and “jointly sponsored stuff” with the USDA. He stated that, “We collaborated with the cities,” and then provided the following example,

I didn’t want to collaborate with the Farm Bureau if the Farm Bureau came in—we were already doing something in our area. It wasn’t happening anywhere else in the state, but instead of fighting them, we invited them in. And when they’ve had programs, it’s been jointly sponsored. Again, we collaborated and brought in lots and lots of folks to work with us and find ways to succeed together, rather than compete and break it up, and so forth.

Director C emphasized that “…you got to walk before you can run, you got to have a plan, you got to know what that pyramid looks like…where you’re going.” Once this has been established and understood, “Eventually you want to have all of those things put together so an individual can come, get educated, develop an idea, develop a business plan, find funding, get direction…all the way through. It’s been an interesting ride!”

However, he also recognized that the successful development and implementation of the JPEC was attributed to the joint efforts of many, stating that “…lots and lots of folks we
solicited, and got lots of volunteers to come and help—as mentors and as collaborators with us. We worked with banks and we worked with private sector...we worked with accounting firms.”

Consistently, the participants mentioned the community and partnerships as large contributors to the JPEC’s purpose and success. Director A expressed an appreciation of the knowledge and experiences held by others, and therefore,

I spent an enormous amount of time, way more than the guys that were there before me, building personal relationships with other community colleges, and high schools, and other organizations. I wanted to build that network so I’d have a legion of people with me, arm-in-arm, as we were trying to transform the ecosystem. It's a lot easier to transform the ecosystem with a group of people than it is by yourself, and that was hammered home to me when I got to NIACC. I couldn't do it by myself. I had to do it with a lot of partnerships, and relationships, and I learned how to do that at my time at NIACC.

Obstacles

Money, undoubtedly, was the prevailing obstacle mentioned by participants, with additional subthemes that included: Lack of Funding, Community and Campus Buy-in, Perception of Being Discounted, and Rural Development.

Lack of Funding

President A stated that, “Certainly, NIACC was not affluent during these times and it required some courage and support and understanding by a wide array of people to allow the investments to occur.” “And without a John Pappajohn,” as indicated by Director D, “it’s very difficult...it’s more difficult to start these centers, unless you have a benefactor or you have a visionary president, who’s willing to put resources toward the entrepreneurship center.” And although “…there’s some state and federal funding programs, too, that can launch these, that’s
tough being a grant-funded program. You’re always chasing money here-and-there, and that’s a challenge in itself.”

John Pappajohn also identified money as the biggest obstacle that he encountered while implementing the JPECs. When asked—without hesitation—his response was, “Money—money’s always the biggest problem. Everybody has ideas of expanding and doing things, and money is the most difficult part. And everybody has to figure out how to raise that additional money on their own.” Director D suggested that perhaps,

The bigger issue is that community colleges are funded at the lowest rate of any public institution…because private institutions [and] private colleges in the state of Iowa get more public funding than what community colleges do per student, by well over a thousand dollars per student, if not closer to $2,000 per student, and not every institution is fortunate enough to have an alum such as John Pappajohn.

Although each JPEC has increased its budget over the years, the respondents still expressed concerns about limited resources. Director B stated that,

You're probably super familiar with how rural it is up here. The resources are—quite frankly—draining; they're not growing. It's all dumping right down to Coralville, Iowa City, and Waukee, and Des Moines. The cranes that are there are building the buildings that are the empty buildings up here, candidly. I think the community really benefits by the action that the Pappajohn [Center] creates, as a stakeholder.

Director C agreed, “…because in the community colleges, they are threatened all the time. They don’t get enough funding for the work that they do, in my opinion.” He also said that while he is “…not a product of the community colleges,” but rather “…a product of the university system,” he has “…gotten to know the inner workings of the community college, and
see there are more students in the community colleges than there are in all of the three regent universities combined. It’s huge. It plays an enormous role in education.”

Director D addressed the issue of funding from a growth perspective, and how a lack of funds limits the actions of the JPEC. He stated that,

I think one of our biggest difficulties is having enough funding to do everything we want to do. I mean that’s education in this political environment…I mean, it’s what the governor wants. How much he wants to cut out of the budgets of the K12, the regents, and the community colleges…it’s huge dollar amounts that we can’t afford to have cut.

So, we’re in that political world right now where education gets less and less and less funding than it ever has got.

President B provided additional support for growth concerns related to budget cuts. He views it as an “ongoing challenge” to support the JPEC “at a level you can continue to do the work…and grow it.” He then recalled a recent announcement of a projected educational cut, and how it could potentially impact NIACC and the JPEC, stating,

And you read the paper this week, too, you know, we’re looking at a half-a-million cut this week, and if that happens, it’s hard to grow anything. Let alone, you know, is the entrepreneurial center core to what we do? It’s on the fringe of that, yes, but if you have to choose between composition and consulting a new business, tough decisions are going to have to be made—we’re not going to cut that back.

President A addressed the lack of revenue from entrepreneurs, with the recognition that “…we are not a revenue generator.” Rather, in the “entrepreneurial world, we’re grant funded…where the entrepreneurs don’t have the funds to be paying huge program costs, and course programs, and stuff like that. They take every penny they have and put it toward their initiative.”
Director D added that, “One of the problems with entrepreneurial education is that entrepreneurs, or budding entrepreneurs, tend to have darn little money, and what little money they have, they need to plow into businesses, which are vastly underfunded.” He further explained that “…it was very hard to charge enough to actually make the entrepreneurial center a profit center, so to speak, for the college itself.” Furthermore, he noted that “…this environment of limited resources and decreased state funding for schools becomes a bigger and bigger challenge.”

However, President B indicated that the JPEC is currently exploring means for incorporating minimal fees into their service structure. Currently, the JPEC’s services are free, “…but if you want continued guidance and supported counseling beyond this point, we’re going to establish some fee structures.” He intends to do so by “…putting some timelines on those services that we provide to businesses.” He discussed an example of a JPEC service that may eventually necessitate a fee,

We have some expertise within our staff that people are willing to pay for because we can still offer it at a cheaper rate hiring a full-time person. For example, [the director of the incubator], I don’t know if you’ve spent time with him or not, his experience is in business law, so he can go into a company and help them with a variety of policies, practices…and even on the financial end, he’s really strong. When businesses are in a mode of growth, or maybe even struggling a bit, [he] can go in and provide that expertise.

Community and Campus Buy-in

For Director A, the biggest obstacles he encountered were related to campus buy-in and community support. He stated that,
Everything was going well. And it seems like, in my experience, in rural areas, entrepreneurship needs to be more prevalent when the economy isn't going well, because people have lost their jobs and they see it as a way to make a living, okay? When you're working, and you're busy, and you're getting paid well, there's not always a big incentive in those areas. So, I think one of the challenges was really getting people to understand the importance of this, and it would be important economically. One of the things that I was up there saying was how entrepreneurship is a driving force of the economy, which it is. It's a job creator, yada, yada, yada, but when your unemployment is almost nil, and the economy is going well, people are looking at you like, ‘Well, things are going pretty well, why do we need this?’ You know what I'm saying?

Another challenge faced when trying to integrate the JPEC into NIACC's business school was the lack of entrepreneurial mindfulness. In fact, Director A suggested that, “The ultimate question may be—and a great future study—ultimately, how do you hardwire (is the word I use) or set-in fundamental processes to integrate these things across the campuses?” He stated that, “That's part of the future dream and I don't know the degree that it's occurred.” He provided the following statement of the difficulties he faced,

I mean, we had help…[but] there were some people there that were like, ‘Why are you teaching entrepreneurship to 18- and 19-year-olds?’ It still wasn't sexy at the time. So, a lot of people were like, ‘Yeah, this is great, but from a student's standpoint, our students are gonna go into the workforce. They're gonna be employees versus employers.’ So I had to do a lot of work to get people to understand why we were doing this and why it would be important to students on the computer side and the technical side, that have to at least be exposed to entrepreneurship education. Realizing most of them aren't gonna be 18, 19, 20 and go start a company, but we were trying to get them to understand the
mindset. That they need to have a mindset of an entrepreneur, and then it could be helpful for them as they go throughout their career. I just didn't have the time.

Director A then mentioned two additional obstacles that he had not anticipated. The first of which was the JPEC “sharing the spotlight” with another entity at NIACC. He explained that “On campus, they had just opened the ‘Davis Manufacturing Center,’ or it was right around that time, so manufacturing education and training was kind of the big deal—other than the Pappajohn Center.” He recalled that he was “…always sharing the spotlight with those guys.” The second obstacle was even more surprising, since a low unemployment rate is typically viewed as a positive. However, at the time of the JPEC’s implementation, Director A explained that it actually had an adverse effect. He stated that,

When I was at North Iowa, the unemployment rate was so low that I remember people saying to me, ‘I hope you don't have success,’ because they were literally afraid I was gonna turn potential workers into business owners, and it was gonna hurt them in getting the staff up there for their operations. It was a really crazy time because I was there when the economy was screaming, and anybody that wanted a job could have multiple jobs. So, that kind of tempered what you could do up there.

Another related challenge noted by Director A entailed, “…getting people to understand and invest in the start-ups…and a lot of start-ups were not bankable, so I had to work with the banks to have them understand the start-up mentality, and to get them to be willing to take a little bit of risk on some of these start-ups.” And at the same time, he was “…trying to get people in the community to put the money behind these programs and some of these start-ups, because without it, there's no fuel in the tank.”
Along with that thought, Director B discussed his challenge of determining “…how an entrepreneurship center fits with the other pieces,” such as “The community college itself, the credit, like we talked about, local economic development groups.” He then explained that, NIACC serves a large region across 12 counties and they had economic development groups. So how does it fit into that world? How does it fit with other SBDCs? That period, to me, was educating the general community and figuring out how an entrepreneurship center was going to relate to and have value as something different than the existing pieces. I think educating the public about what an entrepreneurship center is and does was a big part of our effort. Candidly, to a large degree, a lot of people had never heard of such a thing. When we first started, it was having people understand. There weren't a lot of entrepreneurship courses. It wasn't necessarily seen as a discipline you could learn back then. It's funny to think about how far that's really come. I would say that the challenges early on were demonstrating this can be learned, demonstrating that people can be supported. That was all new information to people 17, 18 years ago, or whatever it was. I think community education was a big challenge.

Director C then provided a recommendation for community colleges interested in establishing an entrepreneurial center. He stated that if he were to “…do it over again,” he would approach it as follows,

I would go out and get each community committed in our region to a piece of the support financially. It’s almost impossible to go out now. I've tried, and we can get piecemeal deals, little deals here and there, but they don’t see it as their responsibility. And if the Pappajohn Center ends up not getting the funding and has to retreat from the activities it does because there’s just not enough additional funding, they’ll have to recreate it all over again at an enormous cost. And so, that’s the danger—that’s the
threat. And, over 20 years, these communities…they’ve gotten used to not having to fund it, and I think that was a mistake.”

President B continued this thought and extended it to “…getting economic developers to buy-in to the process and use us as a resource, because they’re still a little…those challenges are still there.” He recognized that, “They’re trying to do this work as well to some degree, so it’s a very relational process,” but that “I think our services are more widely known—the Pappajohn Centers are more widely known—but it’s still about building relationships and recruiting people to access the services that we wish to provide.” Director C added the need to “…engage the communities within your region,” and that “…entrepreneurship needs to start at the local level.”

When establishing the JPEC at NIACC, he stated that,

We needed to engage our communities and make sure that they bought in, and we would supply the support…[while] they needed to supply muscle and funding in their own communities. We would do training and come in and do programs, so we had to develop those kinds of things, as well.

**Perception of Being Discounted**

The perception of being discounted, both externally and internally, was a subtheme mentioned by many of the participants. President A shared that as a community college, “We’re very accustomed to being a discounted, or—not ignored necessarily—but at least looked upon with less credibility and value by senior institutions, and I think that there was certainly some of that.” Director B also noted that there is “…a pretty clear distinction between operating one of these [ECs] on a community college level, compared to a university level," in that mainly “…the ideas that flowed through are not highly research-based, highly medical-based, highly engineering-based, which I think the other Centers were dealing with.” He recalled that “The
business ideas that we worked with early-on were of a different nature and scale, for the most part, than the university Centers.” He then gave the following example,

The town of Ames…I know the people that they're working with. Their students are working on a patent for a new crop genetic that's going to change the way corn is grown, et cetera, et cetera. Candidly, up here, a lot of mine are starting real lifestyle businesses. They're going to open an HVAC store, or business, or a retail store, or some service business. Our centers have definitely shaped themselves to things going on in their areas. The obvious is also four-year, versus going to a community college; they [universities] are undergraduate and graduate Ph.D. sorts of activities, and we're the first couple years of a community college level. The Centers interact a bunch, but boy, on the academic side, I noticed this job…there is no real impetus to have to reach out and get involved with anybody else.

In addition to being discounted because of being a community college, Director B also discussed general unease and misperceptions related to entrepreneurship centers. “I think people are going to view the [EC] as a resource take, instead of an investment” and not appreciate its value to NIACC and the local community. Director B identified this as “…a classic debate: Is this a cost or is this an investment?” He concluded with,

I think it's a mindset thing, Kelly. I think that's going to be the biggest barrier that some administrator or leader of an institution will face. The classic, ‘We have a budget cut—this is all about expenses.’ No, no, no, this is the opposite side. This is investing now for payoff in the future. My bet is that’s the first thing that they are going to run into as an obstacle.

Additionally, there were internal perceptions of not being valued. Director D suggested that some faculty are unaware of the entrepreneurship presence on campus and the role of the
JPEC. Frequently, ‘entrepreneurship’ is viewed as a component of the business curriculum, rather than a concept represented across disciplines. He stated that at NIACC,

We’re very lean. We don’t have a lot of adjuncts, grad assistants helping in the classroom, so our faculty is very busy trying to just serve and provide a quality education to our students. Adding the entrepreneurship aspect…it’s difficult—it’s more difficult, but there is an opportunity there. While faculty may not call it ‘entrepreneurship,’ many of them are doing very entrepreneurial-type stuff, so we try to be there for them when they need us.

Director A discussed the necessity for faculty buy-in. Initially, he expressed how proud he was about “…the relationships that we were able to build across the campus…whether it’s with continuing ed, the academic program, et cetera, we had, in a very short period of time, built very strong working relationships. We built trust, we built friendships—friendships that I’m still friends of those people today.” However, he then discussed the one relationship that was unintentionally overlooked. He stated that,

I didn’t build a stronger relationship with the academic head, and I should've. I had a tight relationship with the president, I had a tight relationship with those other people, but I did not have the kind of relationship I wish I would've had with the academic person. I didn't because I was working with the president directly. When I went to the academic stuff to start on that, I didn't read the pitch right. I assumed the president was taking care of that for me, and boy was I wrong. So that really put me cross-wise with the academic head, and that was probably the one political mistake. It would've been a heck of a lot easier on stuff if I would've gotten on it…it's kind of like asking your fiancée's father if you could get her hand in marriage—I didn't do that on the academic side, and I got burned. We got it done, but it was a lot more painful than it needed to be.
Even when acknowledging the great fortune and “many successes” of NIACC’s JPEC, the response by Director C reflected a somewhat “discounted” outlook held by some, stating that “…where I’m proud is that the recognition that a lowly community college, in a small little region in North Iowa, has been able to achieve nationally.” Additionally, “being recognized as the number one community college entrepreneurial center in the country, and recognized by John as doing phenomenal work, really gives me a great sense of pride.”

**Rural Development**

President A recalled that the implementation of NIACC’s JPEC “…was during a time when the economic prospects for rural Iowa weren’t all that rosy, and we felt that entrepreneurialism could play an important role and make the most of the opportunity that people in the region had.” Director C noted the vast difference in Iowa’s regions, stating that, North Iowa’s very, very much different than Ames, Cedar Rapids, or Iowa City, Des Moines, in that it’s more rural and you don’t have the population center that’s going to drive entrepreneurship easy. So, we looked at North Iowa and what needed to be done, and restructured the Pappajohn Center to be more broad-based.

Director D described the area served by NIACC’s JPEC, which included “…nine counties sparsely populated.” He further explained that,

We only have 240,000 people in our nine-county [region], where Long Beach, California has a million in one county. I’m not sure if that’s the right demographic, but it’s just totally different demographics than what they deal with, so they may only have a city; they’re much more densely populated than what we are. So, understand…what are those gaps in communities and how can a community college impact the entrepreneurial ecosystem that they’re trying to operate in. So as with any entrepreneur, you have to understand who your customer is and what services they need.
He also discussed his focus on “…the blocking and tackling and the real basics—what does it take to help get a business up and going and become sustainable.” His reason for doing so was, “We try to keep it pretty simple. We’re in a rural economy. We deal with a lot of main street retail and service-type businesses—that’s who our client base is.” He then stated,

We’re not a technology latent area with a lot of start-ups coming out of technology. It’s advanced manufacturing, so as a community college, we reflect who and what’s going on in our area and we try to help people along those continuums.

Throughout the many obstacles faced during implementation and continuation of the JPEC, including funding, community and campus buy-in, perception of being discounted, and the challenges of working in rural communities, John Pappajohn remained positive. He stated, “It’s very helpful to anticipate in advance and know what the obstacles are going to be…and what you need to do in order to be successful.” In essence, he chooses to approach obstacles very differently, and reframes them in a more positive light. Director C reflected upon John Pappajohn’s positivity, stating that,

John would tell you…if he invests in 10 companies, three of them are going to do bad, three of them are going to do okay, and two or three or four will do very well—and he’s going to be positive about all of them. He’s going to think that all of them are going to do well, and he’s going to work hard to doctor them.

This was further explained by Director C, stating that “[John Pappajohn] would tell you that what he is is a doctor of businesses.” Therefore, “…if there weren’t any problems in business, you wouldn’t need people like John or entrepreneurial services. They need them because they’re like a doctor; they’re gonna try to understand what the problem is, and bring solutions to the problems.”
Uniqueness

The uniqueness of the JPEC at NIACC was commonly mentioned by the respondents, and was even associated with John Pappajohn by one participant. President B told the story of his first meeting with Mr. Pappajohn, who he had not met prior to his time at NIACC,

I was a bit nervous, myself. He has the same office he’s been in for some years in downtown Des Moines. You know, I expected this lavish office…you know, you expect a billionaire to have lots of toys and trinkets, right? (laughing) And John is an extremely grounded individual, you know, he’s very philanthropic, but at least in his office, he doesn’t spend money on lots of lavish things. I walked into his office and he was sitting at a folding table with piles of business plans, looking for his next opportunity to invest. So, just the uniqueness of that.

The JPEC at NIACC is also unique since it is “…the only one based at a community college,” as stated by President A. Also, “Being a part of a community college is a lot of pride that we have to being housed here,” added by Director D. “We are a part of NIACC; we’re a small little division of NIACC, really, trying to serve the communities the best we can, along with the rest of the community college.” The respondents identified a variety of unique aspects associated with NIACC’s JPEC, resulting in five subthemes: Foundation for Independence, Community Connection, Financing Options, Relationship across JPECs, and Advantages.

Foundation for Independence

A prominently unique characteristic of the JPEC was its comprehensive offerings and exposure for students to many career opportunities. John Pappajohn stated that, “Well, you’re offering students the ability to learn more about becoming an entrepreneur and starting a business, other than just getting an education to go to work for another company—it’s a major, major advantage…major advantage.” He also mentioned the importance of the “entrepreneur
concept” and its growing presence in educational institutions, and that “…these schools that don't have it are reaching out. Not just community colleges—I’m talking about, you know, major liberal arts schools.”

As a component of the JPEC’s curriculum and offerings, students are provided with, according to Mr. Pappajohn “…the opportunity to learn—to become more independent—and learn how to make a living, other than just going to work for some company…starting a business as an alternative to working for somebody.” He then identified the primary advantages of the JPEC as “…giving them confidence, and how to run a business; how to do all of the facets of managing a business—major, major advantage.” He then further praised the JPEC’s curriculum and benefits to students,

I think that they’re exposed to everything going on in the world, and each one of the schools keeps expanding their curriculum. And those that are more sophisticated are offering artificial intelligence, so, all kinds of things as part of the curriculum. So…which allows students to go on out and start businesses in very exciting areas that were not available before. It’s teaching a man to fish, so they can make a living for the rest of their life. But, it’s not just as simple as fishing; it gets into very, very exciting new technologies, and that’s what you learn in school…and the ability to manage that business.

Director C built upon John Pappajohn’s discussion of the JPEC’s comprehensive offerings, adding that, “We became the only community college in the state of Iowa with a full-blown entrepreneurial center, or the only Pappajohn Center that had a fully-integrated SBDC.” He recognized the presence of an entrepreneurial center at Iowa State, UNI, and Drake, as well, but noted that those JPECs were “outside” of the institution—whereas, NIACC’s JPEC was “…more fully-integrated than the others.” He then gave the following example,
The SBDC in Ames has a particular client that I know they look at, and the rest of them…they don’t work on all of them together. We work on everything, and then we decide based off of skill set—not on particular size or turf wars or anything else. We broke all those things down. So it’s really a different model…there’s nobody outside of the community colleges that’s doing this.

Director D related the independence afforded to student’s through the curriculum to the “cyclical” nature of community colleges to the economy. He stated “…when the economies do well, people are gainfully employed and not seeking community college education as much; when the economy goes bad and people are being displaced, they’re coming back to community colleges and improving their work skills.” He continued with,

[They’re] adding new skills, completely redesigning who they are and what their skills are, and going from being, you know, a mechanic to a nurse, for example. And we see that, too, up in our businesses, as well. When people are being laid off or job opportunities aren’t happening, people are trying to go out on their own and create their own business. Again, those are typically lifestyle businesses—they’re retail, they’re service-based businesses. But again, we do get our handful of high-tech growth businesses, but they’re much more aligned with what our economy is…which is ag, manufacturing-type areas.

We’re night and day different than the regents.

In relation to the JPEC’s contributions, Director B mentioned the impact that the Center has on NIACC’s students, even if they are unfamiliar with entrepreneurship, referring to them as “measurable impacts,” such as “…new jobs, new businesses created, economic velocity, new employees…some of those you'd expect that you’d run into.” He then discussed how the JPEC “…also generates…the phrase I like is, ‘It's a spirit of the possible.’” He expressed how students
at NIACC do not have to necessarily enroll within an entrepreneurship course in order to be exposed to the entrepreneurship presence on campus,

I think people come here, they get involved somehow in the Center, they meet new people, and it opens up their eyes and their lives as to what might actually be possible for them. People come here and they're not sure what their next steps are, necessarily, but they take some of these classes, or they get involved in the Center; they attend some of the gatherings they have with the other entrepreneurs, and the next thing you know, they have a much greater sense of what's possible for themselves. To me, that's been really gratifying to see. That would not have happened if that Center didn't exist.

Another unique aspect of the JPEC at NIACC was the broad educational foundation provided to students, in conjunction with vast exposure to many opportunities. Director D stated that,

I think if you look at the role of community colleges, providing a quality education is at the heart of all we do. You want to have a solid baseline of entrepreneurship classes so students can come in and understand what entrepreneurship is about and recognize—opportunity recognition—how to build a business model and really learn where the resources are at for them to get help. I think the next thing is there’s so much opportunity, you know, community colleges reside in every nook and cranny of our country.

He then discussed the potential direction of students upon completion of their studies at NIACC, and that based upon “…the program we provide here, we lay a really, really good foundation for those students to succeed at wherever they go—whether it’s a four-year regents or privates, or if they go and take a job.” He stated that “NIACC students do very well regardless of what program they’re in,” and that NIACC is “…one of the best. We’re one of the
14…we’re named the 14th best community college in the country. We know we have a really solid program.” In regard to the aptitude of NIACC’s students, Director A expanded upon the thoughts of Director D, adding that,

Personally, I'm a believer that a lot of those students are prime to be entrepreneurs someday, especially the students that are developing technical skills. And so, I felt like there's huge opportunity for those kids because those are the ones that are gonna start plumbing businesses, and small manufacturers, if they go on to get experience and go out on their own. So I think that is a huge opportunity at the community college level, because you're teaching people technical skills…you combine that with the entrepreneurship, and they're loaded from there when they're ready.

**Community Connection**

There was mention by each respondent of the unique relationship between the JPEC and the community. President B suggested that the JPEC’s “triage” approach to addressing entrepreneurial need “…should be the model for the state,” given that “it’s really effective.” He explained that, “We triage our economic development prospects and our entrepreneurial prospects, and decide which agency is best prepared to deal with that. That’s what really, I think, makes the NIACC one so unique.”

Director C identified the JPEC at NIACC as “an outreach model,” rather than one similar to Iowa State’s early model that “…focused strictly in Ames, and people had to come there.” This focus on outreach aligns with the JPEC’s “…responsibility for workforce development, which directly affects businesses.” He further expanded upon this as follows,

A lot of times, those are things that we identified…that they need more workforce development and training. Training is a piece of it; economic development is a piece of the charge of the community colleges of the state of Iowa. So, the difference
is...community college. Let me put it this way, NIACC—every day of the week—
NIACC is found in at least one of our communities putting on programs. We’re there as
their invite, and as a support, in one way or another. Whether it’s continuing education,
or whether it’s traditional education programs for college...or whether it’s educating, as
we do now, down to the 5th grade. So, at any rate, we do programs on our campus. We
have camps; we have a Mind Mania Camp—kids come on and spend a week in STEM-
type activities. We have an entrepreneurial academy where high school [students] come
spend a week actually creating a new business—a real business. So these things are
different at a community college level than they are at a university level.

When the JPEC would develop workshops and non-credit offerings, Director B stated
that “…those came about based on requests from the community or some business leaders in
the community.” He then gave an example of how the JPEC collaborates with the local
community to identify, develop, and provide educational opportunities that also enhance
programs on campus,

One that comes to my mind is—[and] it's a great match for a lot of other community
college programs—for example, this community college has a pretty good HVAC,
heating/air conditioning program, and those are people who are going to go out and
largely start their own little service HVAC businesses. Having an entrepreneurship core
curriculum and Center to support that is a great match for a community college. I think
some of the skills-training that happens in a community college really benefits, because
these people are going to start small businesses somewhere in North Iowa, and the
education center and the entrepreneurial center increases their chance of success.
They've demonstrated that through the data that they've gathered over the years.
Every aspect of the JPEC at NIACC is rooted within the surrounding community—and very different from the other four JPECs within Iowa. Director C explained that,

I think because the community colleges have a responsibility that’s very connected to the communities themselves, that’s not the same at a university level. They are connected to Ames to some degree, as an example, but they’re not joined at the hip with all their communities. Again, our directors of the Board at [NIACC] come from our nine different regions and our nine different communities, and they represent those communities.

The comparison of NIACC’s JPEC to those within a regent institution continued with Director D adding the component of differing faculty roles. He emphasized that unlike the regents’ JPECs that have an association with faculty research and acquired grants, community colleges are deeply entrenched within their communities…which therein lies NIACC’s “intellectual property,” as presented below,

We’re not a research institution where those universities…the faculty are paid for…to come up with new ideas and research. So, our intellect…for universities, their intellectual property lies within their faculty, and what grants are they getting; they’re heavily driven by periodicals, you know, what periodicals are they being published in. Our faculty is not driven by that at all. Our intellectual property lies within our community—the business and industry and the employees within those businesses.

Director D noted that the interconnectedness of the JPEC with the local community required substantial efforts on the part of community college leaders, to actively reach out and initiate strong partnerships. He stated that,

We have to go out there and really find out what’s happening, and what help do they need. We’re—what’s the word—we’re much more of an organic style, where the regents
just go down to the bioscience research center and... ‘Hey, what are you working on?... cancer research here, cancer research there.’ Iowa State with their ag department, they’ll always come out with... ‘What’s this drone going to do today, versus tomorrow?’

Universities are created to come up—be innovative—to come up with these things. So we have to... it’s much harder for us to find these type of businesses compared to the regents. They basically just need to have a couple networking events and they’ll have 50 or 60 ideas. We’re focused on how do we take an individual in our community that may have been laid off, who may be tired of their job, may have a really good idea... all kinds of different reasons why entrepreneurs start.

Director A also expressed the need for the JPEC to be actively connected with the local community. As the JPEC’s director, he explained that “I worked mainly with bankers... because they had money, and we were working with them to sponsor the training program. It helped them because it gave them better customers—or more customers. But those were kind of the driving people I leaned on, and where I got guidance.”

Director D concluded his response with his view of the JPEC at NIACC, along with John Pappajohn’s expressed view, stating that,

I think our impact we’ve had on the state and nationally, you know, we are seen as a leader. I’ll never say, you know... John will say we’re the best, you know, I would never say that... that’s not my style; every entrepreneurship center should be different, and I’ve got some great relations with entrepreneurial centers across the country. And we’re all uniquely different and we respect what each other’s [EC] does and are excited for the accomplishments that we each have.
Financing Options

The means of financing for the JPEC at NIACC was strongly addressed by Director C, given his role in the development of the JPEC. He was largely responsible for restructuring the operational aspects and direction of the center, as well as securing funding to do so. He discussed the establishment of financial support for the JPEC in great detail, stating,

Again, you won’t find other entrepreneurship centers, for the most part, that have funding that they can give directly to a business or loan directly to a business, like we have. We have our own funds that we don’t have to ask whether we can give it. We also have the entrepreneurship fund, which is a venture fund that we just provide support and due diligence, and help them to do the due diligence…and we’ll have a support mechanism for that. We raised the money for the benefit of business start-ups…I think that’s another one that I think John was proud of that we did…and I’m proud of it.

Director C also acquired a USDA loan fund, which provided small, microloans to people with little or no credit. This was unique in how it was structured, since it was “…modeled after what was done in Africa and India with those little loans that they would give people, and they’d start making clothes and selling them, right.” He further described it as,

…A microloan, if you will, for microenterprises for people down on their luck, where they couldn’t go to the…they may have an idea, but we would require them to go through training and submit the business plan, submit their…they had to keep a profit and loss statement, and submit that. So, that’s how they got their money. And we had some successes, and great successes. We had a number of failures, obviously, because these are very, very high risk folks, but we had some great success.

Director C also stated that, “Eventually, we created our own venture capital fund; there’s no other entrepreneurship center—JPEC Center—that has its own entrepreneurship fund.
However, he did acknowledge that “…one did exist at the University of Northern Iowa about the same time we came out, but they don’t have one anymore, theirs is done.” He then mentioned that NIACC’s JPEC now has another venture capital fund, stating that,

> We’ve raised almost five million—or four million, I think it was—for these entrepreneurship funds. And those funds were going to go to…the first goal was to support businesses in North Iowa that were going to be started, but [the] second goal would be anybody in the state that we saw.

Additionally, John Pappajohn mentioned that “…one of the problems in entrepreneurialism is capital for small companies.” To resolve this concern for the JPEC, he contacted the president of Blue Cross Blue Shield “…and he gave us a five-million-dollar commitment…a five-million-dollar commitment for new start-up companies, which helped us very much at the time—very much.” As summarized by Director C, “It makes you feel pretty good when you see somebody down on their luck, but has an idea—and it’s a pretty good idea—and you can help them actually make that idea into a life, and life-sustaining business.”

**Relationship across JPECs**

Throughout the interview process, there was mention of the relationships that exist between all five of Iowa’s JPECs and the unique value that it adds to each JPEC, as well as the residents of Iowa. For Director B, “A major part of this story is the collaboration between the Centers—that was strong from day one.” He explained that while serving as the JPEC’s director, “I was working a lot with the other Centers, and if they were doing something that worked well, I tried to bring it here. We worked very closely.” He also explained that,

> I was in regular telephone contact with the other Center directors. I got great ideas. We worked together on setting up programs. We shared ideas back and forth. I believe, and I know that to be the case to this day, the Centers still—while operating independently at
their sites—collaborate significantly. My editorial comment, by the way, is that one of the strengths of this whole system is the leveraging by everybody working together. That's been fun to watch. I'm very pleased by that because it leverages the resources. It's a very efficient way to go about it, from my perspective.

John Pappajohn stated that, “I think they’re extraordinary successfully, and they’re all different…and they’re friendly. They compare and they help each other.” He then praised each of the JPECs as follows,

The great thing about it is that all five of the schools are working together, and that’s what makes this whole operation work so well. I mean, all of the leaders of the five Centers do a terrific job—all five. I am proud of all five of them. So…and I don’t tell them what to do—they do it. Each one has found a different way of becoming successful.

Director D similarly replied that, “Yah, and we all—all of the five—we all get along really, really well. Initially, there’s a lot of competition as we’re really trying to figure our way through, but we’ve all settled.” He then identified Iowa [UI] as the largest and recognized its success, stating that “Iowa’s definitely the biggest Center. [The director] has done a great job of accessing a lot of funds.” However, each JPEC is successful in meeting the specific needs of their regions, and they all share a common goal of helping all entrepreneurs, “…regardless of race, regardless of sex—we help entrepreneurs of all types and sizes and ideas, and we try to convene resources.” He defined the role of the JPECs as “generalists,” explaining that “…if we’re not an expert, we’ll go out and find that person and really help bring that expertise to them. And we’ve been pretty effective with that.” Director D recognized a few of the resources that the JPEC utilizes to meet the varied needs of entrepreneurs, such as,
We reach out…we use CIRAS, we use Iowa State…Iowa State, CIRAS, University of
Iowa, Northern Iowa…I mean, as long as our clients are getting the help, we’re the ones
who kind of help them understand who is out there that can help them. We’re not
bashful about doing so.

Director C stated that although the five JPECs “…did collaborate often,” to further
maintain open communication and active partnerships, Director C “…began bringing all five of
these Centers together for quarterly meetings and we talked about what we were doing, and
there were opportunities for us to leverage each other…better than what had been done.” He
again identified this strategy as a “…business kind of concept, having come from the private
business sector—that’s what I was accustomed to doing.” The resulting outcome of the
meetings was that each JPEC “…took best practices from them,” all benefitting from the
experiences of the JPECs as a whole.

Director A and Director D also noted that while the JPECs all work together and benefit
from doing so, there is a recognized difference between NIACC’s JPEC and the other Centers.
Director D stated that,

We know we have a really solid program, so I try not to get tied up…when I start
comparing myself to Iowa and Iowa State; it’s just a much different animal than what
they have, or what they do. Our entrepreneurs are coming from a much different place
than where universities are. Many of those are class projects, [whereas] many of our
entrepreneurs are life projects.

The difference between an entrepreneurial center within a community college, as
opposed to a college or university, was further substantiated by Director C, who presented the
following twist to the ‘uniqueness’ of NIACC’s JPEC,
Well, the other four have graduate schools. Our students, the student population that we have, is only there for two years, then they matriculate somewhere else. So, it’s very difficult to have…you know, you don’t have an engineering program, you don’t have a science wing where you have Ph.D.’s and Master’s students working on ideas, so all the universities have something like that. Even MBA students looking for an opportunity to consult, and whatever, at Drake…so that’s a huge difference, and that meant we didn’t have a way to fill a funnel of entrepreneurs through the traditional curriculum of the college, right? You know, universities get that; they have that. They can fill that pipeline—we can’t. We had to look outside.

According to Director A, during the early development of the JPEC at NIACC, these differences were attributed to the need for “…more diversity in the students taking classes there—meaning kids from different types of areas across the campus.” One participant noted that The University of Iowa’s JPEC was a “…true campus-wide program,” with “…students from 90 different majors” representing every college on campus within entrepreneurship courses. Director A stated that, “I would have liked to see the same thing at NIACC.” He then further discussed the difference between the JPEC at NIACC, as opposed to the JPECs at Iowa’s regent universities and Drake University,

So, there wasn't the culture of innovation. And when I say that, too, when you're at a community college, you don't have research going on. You don't have innovation going on. You don't have all the other things that happen at a research university, like at Iowa. So these students are meeting with faculty that are doing research, they're making incredible technologies…bringing amazing people and speakers together…in a vibrant entrepreneurial community with alumni. And just the critical mass…so NIACC is a couple thousand students, while Iowa's 30 or 33. So, I mean it's just…on the scale, is it
even there? In contrast, at Iowa, again, you’re generating hundreds of new technologies a year, working with older students that have a little bit more experience. And they’re all different students—from all over the globe—that come to the University of Iowa, and a lot of NIACC students are local. They haven't had that kind of experience, so they don't bring that to the table. And so, again, it's a different culture, it's a different mindset, and you have students that have completely different experiences at a university than they are at a community college.

However, Director C addressed how NIACC, being a community college, actually has a unique advantage in regard to campus integration, stating that, “It was more integrated between the JPEC and the educational staff, than in some other settings.” While he recognized that the University of Iowa is “…pretty well integrated that way,” and that “…they bring in a lot of entrepreneurs,” he also noted that “Many of those, in their cases, of course, are graduates that come back, or they’re there to help.” The JPEC at NIACC, however, utilizes “…actual business leaders in our communities, to come in and talk on the area of emphasis on a particular day…we had lots of entrepreneurs coming into the classrooms.”

Another difference mentioned by Director C was that, “The university has to take care of educating four-year, six-year, 12-year students throughout their career, and ours is different. Ours is the two-year, and then out to the colleges.” He stated that NIACC’s JPEC will “…bring them back to have continuing ed…and four-year training with people on our campus, but we don’t deliver it. We’re the host for it and we will support and market it.”

Regardless of the differences between the JPECs, John Pappajohn appreciates that each center is unique, and attests that “…all five of them have just done great. They’re all doing something better…each one does something better than the others, but I would rate them all as very successful.” He did briefly mention a few distinctions, such as “Iowa State’s engineering,
which is terrific…starting businesses,” but also that, “They all have different awards they collect.” He then recognized the success of the JPEC at The University of Northern Iowa, having been “…rated the number one entrepreneurial center in the world, I believe,” due to their follow-through with businesses to help make them be successful. He suggested that,

It’s a different operation. They work with them and continue to work with them. It’s probably more like merchant banking; they really see it through and help them become successful. Whereas, some of the others help them get started, then they got to figure out the rest; they got to figure out how they’re going to survive. But, they’re all—again—they’re all five very, very successful, and I’m very proud of all five of them.

Advantages

Also included in the discussion of the JPEC’s unique aspects was recognition of the advantages of having an entrepreneurial center within a community college. Across the respondents, there was shared agreement that the advantages were centered around the local community. For Director D, there was great pride in acceptance of the JPEC into the community, stating that,

I think the biggest advantage of being part of a community college is that…I mean, community colleges are so important to the regions that they operate in, and particularly, rural areas. When you ask people around here about NIACC, there’s a lot of pride about the quality of institution. So, it gives us pretty good credibility, that’s only…you only earn that credibility if your quality of work equals that of what NIACC is expected to do.

Similarly, President A identified key advantages that highlighted the JPEC’s relationship with the community, but more specifically addressed the proximity and connectedness of the Center and surrounding area as follows,
I think there’s advantages of having a Center in a community college because of its proximity and closeness to people of a region. It’s not that people around Ames couldn’t take advantage of the same services or educational efforts at Iowa State University, for example, but Iowa State University is one location, and communities are spread around there. Our keen advantage over the years as community colleges is we’re close to people. Geographically, certainly, but we’re also close to people in a sense of not being very overwhelming to people of the community. They can walk on to a community college campus, park easily, know where they’re going, find where they’re wanting to go, talk with who they want to talk with, and leave. Where, for a lot of people, even finding out that a Center even exists in the large-scale major universities is quite an undertaking. Where the news at a community college about an entrepreneurial center is pretty visible, and it’s hard to not recognize it.

President B expanded upon the aforementioned advantages of having an entrepreneurial center in a community college and provided much greater detail. His response addressed three key aspects of the JPEC, regarding its broad service, accessibility, and economic development. His reply is as follows,

I would say that, just as you think about the broad service that we provide, that puts us right smack in the middle of the business community and brings resources to a lot of different areas. It validates the community college’s role in business and economic development, and it adds to our reputation of service to the community, service to the region…and I think it’s just added value that you’d don’t get from any other community college, to be quite honest.

Director A agreed that community colleges are much more tied to their local communities in comparison to a university, just by the very nature of the institution. So, he felt
that “...an entrepreneurship center that's promoting entrepreneurship innovation and trying to help bring new ideas and new businesses and new approaches of management of organizations, I think it's very, very important to help not only bring new businesses to the market, but help existing businesses grow. It also helps them attract talent and bring new talent from the community college, to transfer them into their company—not just on the technical side, but on the business or leadership side.”

Director D then recognized its importance to the North Iowa area, given its accessibility to the nine-county region, stating that,

I think it’s location as much as, maybe entity. I do think that because of the nature of our economic development work, there’s a culture tie, possibly—to the communities and an opportunity for us to make those connections, because we have economic development funds that flow through us, as well. So we know where expansion is taking place, we know where the challenges are taking place, and we can deliver those services or deploy those when necessary.

President B also acknowledged the broad network of NIACC’s JPEC in comparison to that of Iowa’s regent institutions and Drake University. He attributed its uniqueness to its expansive reach and extension of services—far beyond NIACC’s immediate, surrounding area. He explained that as an entrepreneurial center within a community college, “We’re also connected to the city, counties, the school districts, the economic development organizations, and it gives us a network to pull people in.” On the contrary, he noted,

You know, Drake University is tied to Des Moines—tied to the metro area. I don’t think they’re servicing...I might be wrong...they’re probably trying to do the same thing, but I think our region for this college is nine counties—plus.
He then added that “…because we tie the SBDC into it, it even expands beyond our area. So we can leave our service area under the umbrella of the SBDC, and bring businesses back to our center for assistance, if they need it.”

While each of the JPECs had unique offerings, Director B attested that “We did well at NIACC because I learned a lot from Iowa State, I learned a lot from Iowa, UNI and the directors—we were all a phone call away on first name bases.”
CHAPTER V. DISCUSSION

This chapter discusses the results of this case study, which involved interviews with seven past and present administrators of the JPEC at NIACC, regarding their role and direct involvement with the JPEC’s development, implementation, and continuation. A qualitative case study approach captured the unique perspectives of the key professionals who played an active role in the development of NIACC’s JPEC. This resulted in a rich description of each participant’s experiences and reflections, as associated with their specific role in the JPEC’s implementation. The outcomes of the study are further discussed below and organized within the following sections: Overview of the Study, Discussion of Research Findings, Implementation Considerations, General Framework, Limitations, and Recommendations for Future Research.

Overview of the Study

Iowa’s community colleges have a mission to “provide exemplary education and community services to meet the needs and enhance the lives of Iowans” (IADeptofEd, 2017b). In doing so, Iowa’s community colleges positively contribute to the state’s economic and workforce development, providing unique educational opportunities. In Iowa alone, approximately one of every four Iowans annually enrolls within a credit or non-credit course at a community college (IADeptofEd, 2017a). For the 2014-2015 academic year, Iowa’s community colleges served 138,642 credit students and 232,480 non-credit students (IADeptofEd, 2017a, p. 9), and awarded 795,235 A.A. Degrees and 494,995 certificates (AACC, 2016, p. 2). Therefore, community colleges are identified as major drivers of economic growth (Milliron & de los Santos, 2004). For NIACC, this goal is further realized through the presence of the John Pappajohn Entrepreneurial Center, which is positioned to reasonably meet the specific needs of
local businesses and industry. Presently, NIACC is the only community college in Iowa with a JPEC, but there is growing interest amongst Iowa’s 14 additional community colleges to implement a similar EC on their campus (T. Putnam, personal communication, May 4, 2015).

The literature review within Chapter II indicated that research related to EC development is typically focused on four-year and graduate-degree granting institutions, and is an underrepresented area of research related to community colleges. Educational institutions have embraced the increased interest in entrepreneurship education by providing related coursework, with some institutions also creating entrepreneurial centers. While the first EC was established at Southern Methodist University in 1970 (Katz, 2003), by 2014 the number of centers had surpassed 200 (CFEE, 2014, p. 13). The presence of entrepreneurship coursework also increased within U.S. colleges and universities, growing from 93 courses offered in 1979 (CFEE, 2014) to more than 1,600 offerings in 2006 (Finkle, Kuratko, & Goldsby, 2006). By 2009, approximately 80 percent of all U.S. colleges and universities offered courses related to entrepreneurship (Welsh & Carraher, 2009).

In Iowa, one donor, John Pappajohn, created funding for Entrepreneurial Centers within five higher education institutions. The JPECs recently celebrated their 20-year anniversary, which makes this study especially timely given the heightened interest in and awareness of the Centers. To comprehensively understand the establishment of NIACC’s JPEC, it was essential to “illuminate” the role of each participant throughout the implementation process. To acquire this information, one-on-one interviews were held with each participant and recorded for thematic analysis (Schramm, 1971; Yin, 1984, p. 22). As presented in Chapter IV, upon transcription and analysis of all seven interviews, the following eight primary themes were identified: JPEC Beginnings, Structure, Education, Leadership, Measuring Success, Community Involvement, Obstacles, and Uniqueness.
Within this study, there was particular interest in the decisions, plans, and execution of the John Pappajohn Entrepreneurial Center at North Iowa Area Community College—respectively, the implementation of the center. A case study of a single site interviewing multiple individuals was employed, using an exploratory case study approach to identify the JPEC’s development, implementation, and organizational workings. The participants were purposefully selected, and included two NIACC presidents, each of four JPEC directors, and the namesake investor. All seven administrators were male, ranging in age from 51 to 88, and each brought extensive experience to the JPEC, related to business development and growth, business consulting, proven entrepreneurial successes, and strong leadership abilities. With some of the initial implementation leaders now within their 70s, this study provided an opportunity to capture their rich experiences and reflections through individual, in-depth interviews.

**Discussion of Research Findings**

This case study presents information particularly valuable to Iowa’s additional 14 community colleges interested in establishing a similar EC on their campus. However, with the 2014 report by the American Association of Community Colleges indicating that 45 percent of all U.S. undergraduates enroll within a community college (AACC, 2016, p. 1), there is value in the extension of this study’s findings to community colleges beyond Iowa. The results provide guidance for the process of entrepreneurial center development, including initial pre-implementation considerations and suggestions for existing center continuation. Furthermore, the findings provide a starting point for the collaborative efforts of administrators, faculty, investors, and community partners to meet the specific entrepreneurial needs of each institution and its local community. The guiding research questions, along with their associated themes, are discussed below (see Table 5.1).
Table 5.1

Relationship of the case study’s research questions with identified themes

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<thead>
<tr>
<th>Research Question</th>
<th>Associated Theme</th>
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<td>RQ 1 How and why was the JPEC at NIACC established?</td>
<td>JPEC Beginnings</td>
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<td>Leadership</td>
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<td>RQ 2 What were the necessary components for implementation of the JPEC?</td>
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<td>RQ 3 What are the necessary considerations for continuation of the JPEC?</td>
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<td>RQ 4 What are the obstacles associated with EC implementation at a community college?</td>
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Formation of NIACC’s JPEC

**RQ 1: How and why was the JPEC at NIACC established?**

David Bass (2003) wrote that whereas many four-year institutions may be vulnerable to economic changes, community colleges have benefitted from such through greater strategic planning, increased fundraising, organizational restructuring, listening to feedback from faculty, staff, and students, and taking advantage of the institution’s local economy. In response to the economic condition and workforce needs of Mason City’s surrounding area, the John Pappajohn Entrepreneurial Center was established at NIACC. Mr. Pappajohn also established Entrepreneurial Centers at four other institutions in Iowa, collectively known as “John Pappajohn Entrepreneurial Centers” (Pappajohn, 2017b). It is this funding, as well as the strong leadership of the Center at NIACC, that has propelled the Center forward. It was these directors
who established the mission of the JPEC, in conjunction with input from the advisory board and stakeholders.

**JPEC Beginnings.** Associated with this theme were the following two subthemes: Role of John Pappajohn, and John Pappajohn’s Vision. Given John Pappajohn’s acumen and business success, he sought to help the state of Iowa and increase its economic value. His solution was to help educate and train students, along with fellow business people, who were determined to become successful—to establish a means to “train and show them how to do it” (Pappajohn, 2017a). Each JPEC has the same overall purpose: “to enhance the effectiveness of Iowa’s entrepreneurs” (NIACC, 2017c). To accomplish this, he provided more than $30 million to establish five ECs across Iowa, with one of these centers located within North Iowa Area Community College (Pappajohn, 2017b). He recognized the need for greater access to entrepreneurial-focused resources across Iowa, which led to the implementation of the first John Pappajohn Entrepreneurial Center within Iowa’s community college system.

**Leadership.** Within this theme, there were three subthemes, which included: Mission, Advisory Board, and Stakeholders. Each of the participants expressed the need to hire the right people for the day-to-day operations of the center. President B stated that, “You have to be willing and able to hire people with the expertise that can go in and contribute in a positive way, and gain trust with the community.” Director D added that, “You’re only as good as your people around you.” Therefore, he recommended that ECs,

Hire good people—people who are willing to take risks, and willing to get their hands dirty, and have a passion for this. This is a little bit of an ambiguous type of job where you’re a salesperson and this is your product that you sell.

Director D also emphasized the critical need for “…getting the right talent,” stating that, “It doesn’t do any good to have an entrepreneurship center with someone who just has an
entrepreneurship degree and has been teaching it forever. As far as I’m concerned, you can take that and throw it out the door.” He identified the need for EC directors “…to be engaged with entrepreneurs, understand how entrepreneurs think, and to get encouragement” from the campus and local community. The advisory board and stakeholders additionally provided the necessary information and knowledge to help guide the JPEC at NIACC.

**Necessary Components for EC Implementation**

*RQ 2: What were the necessary components for implementation of the JPEC?*

When establishing the JPEC at NIACC, it was essential to build strong partnerships with local businesses and professionals in order to provide enrichment for entrepreneurship coursework and offerings, and expand educational opportunities beyond the campus. When developing and integrating the JPEC at NIACC, it was also important to each of the participants to create a campus-wide presence of entrepreneurship, while upholding its purpose “to enhance the effectiveness of Iowa’s entrepreneurs” (NIACC, 2017c).

In response to the increased interest in entrepreneurship-related coursework and related career paths, many entrepreneurship centers and programs, such as the JPEC at NIACC, have expanded their educational opportunities to reflect a more experiential and interdisciplinary approach to education (CFEE, 2014; Rae & Wang, 2015, p. 126). This results in “…a more hands-on learning experience for students of the program, allowing them to work outside of the business discipline and be a part of a team with diverse backgrounds” (CFEE, 2014, p. 37).

**Structure.** This theme included the following three subthemes: New Concept, Components, and Center Funding. As entrepreneurship becomes an integral part of communities within Iowa, positively contributing to economic growth and workforce development, it presents the need to further integrate entrepreneurial resources within Iowa’s community colleges and communities, similar to that of the JPEC at NIACC. As a first step,
Director C expressed the need to establish the EC’s initial buy-in and support, prior to the actual Center development. He stated that one of the main lessons he would share is “…don’t build the Center first or build the staff first—get the support of the communities, your constituent’s funding, and commitments that they want to help—and will help—with funding in the long-term.”

Furthermore, during the initial implementation stages, prior to the establishment of the center, Director C recommends that funds received from donors be leveraged. He stated, “That’s one of the things that John likes, and most entrepreneurial donors love it when they can leverage their funding. So, by the fact that we had funds coming in from him, we could say ‘here’s a donor, we’ve got this money, here’s what we’re doing with it, and we need you to do this and match it.’” This allows entrepreneurial centers to acquire and increase the amount of funding that they receive, which is necessary to cover the EC’s start-up costs, as well as anticipated future expenses.

**Education.** Under this theme, there were the following four subthemes: Integration, Curriculum, K12 Extension, and Continuous Learning. The emphasis on entrepreneurship-focused educational offerings, including both credit and non-credit coursework, continues to be an integral component of an EC. Entrepreneurship educational programs need to be interdisciplinary (CFEE, 2014) and provide experiential learning opportunities (Rae & Wang, 2015), while also being coherent with well-aligned curricula, teaching methods, assessments, and academic support (Levin, Cox, Cerven, & Haberler, 2010). Drawing from Peter Drucker’s (1986) notion of “uncoupling,” a disconnect between entrepreneurial coursework offered within the business department, separate from that which the JPEC offers, will result in an uncoupling of the curriculum. The structure of educational departments and programs—including entrepreneurial centers—impacts student success and completion. Community colleges that have highly
structured programs that require fewer electives, while providing clear pathways to completion, career-specific employment, and accessible support services, allow for greater student achievement (Rosenbaum, Deil-Amen, & Person, 2006).

**Necessary Considerations for EC Continuation**

*RQ 3: What are the necessary considerations for continuation of the JPEC?*

To ensure the successful continuation of an entrepreneurial center, in addition to meeting the immediate academic needs of its region, it must go beyond and plan for the anticipated educational needs. Per their mission and their organizational structure, community colleges and ECs spend a considerable amount of time forecasting the future needs of students, industry, and the community (Mellow & Heelan, 2008; Warford & Flynn, 2000). Through the development of certificates, degrees, and educational centers that anticipate the community’s educational needs, the curriculum remains current and relevant and meets the workforce and educational needs of the region. This results in an entrepreneurial center that is deeply-rooted and intertwined within the local environment, and centrally positioned to sustainably meet the various entrepreneurial needs of its region.

As expressed by MacAllum et al. (2004), community colleges are poised to react to the marketplace and deliver programs and services that align with and seek to anticipate the changing dynamics of the region it serves. These programs and services address the educational and workforce development needs of both employers and students as part of the college’s overall contribution to the social and economic vitality of its community.

**Community Involvement.** This theme included three subthemes: Meeting Needs, Outreach, and Collaborations. When developing an entrepreneurial center, it has to be relative to the needs of its specific service region, which is determined through continuous community involvement. As entrepreneurship becomes an integral part of communities within Iowa—
positively contributing to economic growth and workforce development—it presents the need to further integrate entrepreneurial resources within Iowa’s community colleges and communities. This requires community outreach and development of strong partnerships with local professionals in order to meet the entrepreneurial needs of students and residents.

As mentioned by Director A, establishing these partnerships allows the EC to “…jointly develop programs, and offer programs that benefit the various constituencies.” Director D stated that, “We find that outreach in our community is where there’s great demand, and a lot of pride in the work that we do in our community. Our niche is community outreach.” He recommends that ECs “…find out what’s really important for your school and community, and what services are needed—or are lacking—and try to help fill those gaps…and try to partner with everybody else out there to make for a vibrant entrepreneurial ecosystem.”

**Measuring Success.** Within this theme there were two subthemes: Establish Metrics and Business Development. According to John Pappajohn, he considers a successful EC to be “…a center that teaches their students, or members, how to run a business, how to start a business, how to manage it, how to create sales, how to manage the books—all of those things.” When defining the metrics for the JPEC—although he stated he hated to use numbers—John Pappajohn noted that “numbers are important,” as related to the following:

How many businesses have they opened, are they successful, and are the students getting the right kind of training so they can be successful? And, do they help them beyond just the idea; in other words, is there help to help them to become successful? Ultimately, that’s what success is…it’s people that start businesses and that make money and survive. It creates employment.

Director B emphasized the need for metrics to be greater than just counting participants. Rather, he noted that the real success of the center was defined by the actual entrepreneurial
activity that it creates. He stated that, “Our success comes through the result of having successful start-up companies.” He stressed the importance of “…a community college being tuned in to what your community’s needs and wants are, and try and help address them. [We] listen to our entrepreneurs and find out what issues they’re having…and how effective are we at taking somebody from an idea, to creating a business—and how sustainable are they?”

**Obstacles with EC Implementation at Community Colleges**

*RQ 4: What are the obstacles associated with EC implementation at a community college?*

For entrepreneurs within rural areas, such as the majority of Iowa’s community colleges, limited support services can present significant obstacles to business creation and growth. Given the rural service area of NIACC’s JPEC, as well as Iowa’s additional community colleges, there are various entrepreneurial needs to be met and potential obstacles that may be faced. According to Director C, his goal for the JPEC was “…to make all of North Iowa more entrepreneurial—including existing businesses, as well as new start-ups.” However, he recalled that after speaking with businesses across North Iowa “…to identify issues that they were facing,” he realized that “…there weren’t very many new start-ups going,” so the initial efforts focused on existing businesses…[to] teach them how to be entrepreneurial and grow.” Through the establishment of additional ECs within Iowa’s regional community colleges, Iowans would have greater access to the necessary support services for successful business development.

**Obstacles.** Lack of Funding was the obstacle most frequently mentioned by participants, with additional subthemes that included: Community and Campus Buy-in, Perception of Being Discounted, and Rural Development. Indicating how a lack of funds limits the actions of the JPEC, Director D stated that,

I think one of our biggest difficulties is having enough funding to do everything we want to do. I mean, that’s education in this political environment…I mean, it’s what the
governor wants—how much he wants to cut out of the budgets of the K12, the regents, and the community colleges…it’s huge dollar amounts that we can't afford to have cut. So, we’re in that political world right now where education gets less and less and less funding than it ever has got.

Additionally, there were internal and external perceptions of not being valued, or being “discounted.” President A shared that as a community college, “We’re very accustomed to being a discounted, or—not ignored necessarily—but at least looked upon with less credibility and value by senior institutions. Furthermore, Director D stated that some faculty are unaware of the entrepreneurship presence on campus and the role of the JPEC, and view “entrepreneurship” as a component of the business curriculum, rather than a concept represented across disciplines.

Unique Aspects of an EC within a Community College

RQ 5: What are the unique aspects of an EC within a community college?

Experiential learning and interdisciplinary programs are important avenues for entrepreneurship education (Rae & Wang, 2015). The National Entrepreneurship Survey indicated that “…one of the features that provides their program with a competitive advantage over others is their ability to offer experiential learning opportunities to their students,” allowing them to “…participate in real-life situations and activities outside the program” (CFEE, 2014, p. 36). Students are “…eager to apply their education outside of the classroom…[and] are looking to educators to provide the opportunity to participate in internships and business plan competitions, as well as interact with professionals and entrepreneurs through resource networks” (CFEE, 2014, p. 36). Entrepreneurial centers within community colleges are uniquely positioned within the local community to partner with businesses to provide these learning experiences desired by students.
Uniqueness. This theme included the following five subthemes: Foundation for Independence, Community Connection, Financing Options, Relationship across JPECs, and Advantages. A prominent and unique aspect of the JPEC at NIACC was its close connection to the community, and its active involvement to promote the economic growth and development of the North Iowa region. Ultimately, as expressed by Director D, “Our entrepreneurs are really centered for what we do.” On a weekly basis the JPEC examines their client lists to determine “…who’s our active clients, who’s our current clients, what resources do they need, what do they want from us, what do they want us to help them with—and make sure we’re accomplishing that.”

The involvement of the JPEC within its surrounding community is evidenced through its on-going engagement and collaborations with the region’s economic development efforts, business and industry partnerships, regional and state entities, and alignment with national initiatives. As a result, these connections allow for close working relationships between the JPEC and the community on business development efforts, and also provide various opportunities for student experiences within real-world entrepreneurial environments.

Implementation Considerations

The thematic analysis of the interviews also revealed a compilation of words of wisdom, closely associated with the identified themes and subthemes. These are presented below as key considerations for community colleges that are either: 1) emerging—implementing a new EC on their campus, or in the early stages of development and operations; or 2) existing—currently operating an established EC on campus, but could learn from the experiences of these seven administrators as they progress forward. Table 5.2 provides implementation considerations for ECs—whether they are considered to be an “emerging” center or an “existing” center, as well as how they align with the case study’s themes.
Table 5.2

Implementation considerations for emerging & existing ECs, related to themes

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Emerging Entrepreneurship Centers

1. **Clarify Mission and Vision.** Entrepreneurial centers need to create coherent mission and vision statements that provide guidance and direction for their work. Recognizing it as “…the foundation of all this,” President B stated that, “The first thing is really adopting a philosophy of *growing your own*. I think you have to be committed to the belief that we can impact the economy by assisting people—starting and growing their business.” However, as noted by John Pappajohn, “Today it’s going to take more—it’s going to cost more, but it’s possible.” Maintaining his positive state-of-mind and encouraging outlook, he again emphasized that, “I don’t tell anybody they can’t do anything, because anybody can if they’re willing to pay the price and get out there. It takes real leadership and a commitment—including financing.”
It was evident after speaking with JPEC administrators that John Pappajohn not only provided the vision, but also the initial and continued financial support. As indicated by Director B, at the time of implementation, the JPEC lacked the necessary resources to establish its own building on campus, and rather, allocated such funding to the programs and beginnings of the Center. However, as an outcome of John Pappajohn’s continuing support, he provided an additional $1.1 million for the construction of an official JPEC building in 2001. This sequence of events aligned with the expressed thoughts of Director C, stating the necessity for an entrepreneurial center to establish initial buy-in and secure continued support as a first priority.

2. Secure Financial Support. Much consideration needs to be given to the initial and on-going funding aspects of implementing an EC, which was recognized as the biggest obstacle that ECs encounter. This is especially true for new centers, or centers in the planning stages. Director C stated that, “Funding is, no doubt, the biggest hurdle in the midst of all the budget challenges that we’re facing right now. It’s hard to find a million bucks to start a center…I think it’s that long-term funding piece that we’ve been the benefactor of from the Pappajohn family that has really grounded that and made it part of our college. It’s institutionalized now.” He stressed the importance of “…getting that funding in place to support the start-up, as well as get you through those tough first years where you’re trying to really build a footprint and a reputation of a necessary and required resource in a community.”

3. Integrate Curriculum. This is an especially important consideration within the following three circumstances: 1) when implementing a new EC within a community college that does not offer entrepreneurial studies; 2) when implementing a new EC within a community college that does offer entrepreneurial coursework—requiring changes to the academic structure to include entrepreneurial studies within the new EC; or 3) when an EC currently exists within a community college, but organizational changes are necessary in order to include entrepreneurial
coursework within the EC (as opposed to designation of such studies to the college’s business department). Without a shared understanding of the entrepreneurial coursework to be offered, and the most appropriate placement of such within the community college, there is a disconnect that causes unnecessary replication of offerings (or lack thereof), and confusion on the part of the student.

To counter this, Director B suggests that ECs “…really be assertive in embedding the programs into the college overall. Don't make it a separate little entrepreneurship center.” When determining the placement and integration of the entrepreneurship curriculum and offerings, he recommends to, “Make those certificates, degrees, diplomas, all that stuff, feed right through the rest of that college, because that's what students want. They want to take this just like they take the other disciplines.” He cautioned that “in the typical operating systems of an institution…I would guess, if I was a college president, what I would be faced with quickly is all the yeab, but’s,” so his suggestion is to “…be ready for that and move very swiftly to embed that into the institution overall.”

4. Acquire Strong Leaders. This study indicates that leadership is critical to the success of EC implementation within community colleges. Ultimately, institutional success depends upon the competency of designated leadership, and their ability to effectively communicate the institution’s shared vision and strategy. The presence of strong leadership is necessary within community colleges, given the decentralized nature of decision making, and the leadership roles often shared between the campus president, top administrators, deans, department chairs, program directors, and faculty (Jenkins, 2011).

These key leaders are not only responsible for campus operations and decision making, but also for communicating a shared vision that is understood by all, including institutional goals and expectations. Additionally, they are responsible for the means by which community college
programs are managed, which directly impacts the experiences of each student. As presented within a study conducted by Bowers, Bowers, and Ivan (2006), entrepreneurial center directors tend to have varied backgrounds, with 68 percent of their 56 participants primarily from industry, as opposed to academe. However, 80 percent of the participating directors were reported to have held an academic rank at their institution—most commonly as an instructor or lecturer (Bowers, Bowers, & Ivan, 2006, p. 4).

In relation to the successful leadership of NIACC’s JPEC, President A stated that, “We all made our best effort, is all I can say.” Similarly, Director D attributed the JPEC’s continued success to “…the lineage of the leadership successions.” Collectively, these individuals positively impacted NIACC’s JPEC in their own unique way. As stated by Director A, he considered his time at NIACC to be “…a great experience,” and felt that a significant accomplishment by each participant was that they “…created the network across the campus that made it easy for the next person to come in; a lot of the groundwork had been laid for them so that they could connect well” and be successful.

5. Develop Success Metrics. Although not all components of EC implementation can be easily measured, efforts need to be made to develop performance metrics for an entrepreneurship center. These metrics must include clear, measurable goals that are assessed periodically and shared throughout the institution—ensuring that all are properly informed and emphasizing the importance of shared responsibility for institutional success.

Traditionally, metrics for measuring regional competitiveness related to business development have included wages, taxes, and land costs. Although these factors are important for recruiting new firms to a region and for local business retention and expansion, they provide minimal insight into the ongoing success of entrepreneurial centers. For this study, proposed metrics for gauging an EC’s entrepreneurial development efforts focused more on the local
economy and community. The outcome of such metrics provides information necessary for community colleges intending to implement an entrepreneurial center modeled after NIACC’s JPEC.

6. Establish Buy-in Early. According to President B, in order to “make this go,” community colleges “…have to have those relationships with those business leaders, economic developers, and in their community; they have to have the reputation so that they can get some synergy on the front end.”

Director C then discussed why early buy-in is so important for successful EC implementation,

If there was a mistake made in the Pappajohn Center, it wasn’t because John was so generous, our communities felt like the Pappajohn Center was responsible for doing entrepreneurship—and that’s not my view. I think the individual communities and areas are responsible for entrepreneurship, and it’s our role to support that, help guide it, and provide the resources outside of the funding. And by not going out and getting funding from other folks through them when this started happening—and, of course, it was brand new and nobody had done one of these—but this is the way I would do it today. I would go out and get each community committed in our region to a piece of the support financially. So, if I was starting it again, or telling somebody else about it, I would assess the environment, I would do a little more planning in advance, getcommitments from the community or wherever the funding was going to come from, get them on organizations that want to join in, and have that all set out in advance. And if you can find a donor like John, then I’d try to get matching funds to John’s money. I would say—out to the communities—we’ve got this money…we’ve got to match it.
President B recommended that, “The first thing you do is you get the SBDC in the office with you—make it a one-stop-shop for all things business.” Secondly, “You have to build relationships with banks and cities and economic developers. It’s about relationships, so managing the resources, partnering—any regional partnerships you can pull in to provide support and service is really a best practice.”

7. Explore Existing Centers. For any institution considering the possible implementation of an entrepreneurial center, one of the first steps should be to explore the existing five JPECs. As stated by President B, it is helpful to “…figure out your demographic and what’s going to work in your region…through engaging the community and some strategic planning on the front end.” He stated, “It’s very helpful to anticipate in advance and know what the obstacles are going to be—and what you need to do in order to be successful.” President B suggests that ECs, “Take small steps…how are you going to measure it? But to do a little work, a little reading with some of the resources that have come out of the NACCE board. Go to a conference, talk to people, get excited.” However, as a precursor to making any definitive implementation decisions, President B suggests the following approach,

I think I’d visit all five of them [JPECs in Iowa]. I would visit all five of them. I’d spend a significant amount of time with us, because it’s a little different animal, and look at…our folks have really built this place. They can tell you what’s worked here and what’s not worked. That’s where I would start. I’d probably…I’d recommend that they sit down with John Pappajohn and talk about his vision for the Center, and where he sees these things going. Make some of those same relationships that we’ve been able to benefit from. John’s going to be supportive of anybody in this field—in this space—and there’s people like John in every community. Maybe not just like John, but there’s people
in every community college region that get entrepreneurship, and believe we need to leverage that to build communities and to try to identify those people and pull them in.

John Pappajohn agreed that in order to adequately meet the needs of the college and the community, establishing a successful entrepreneurial center requires speaking with experts in the field and acquiring great leaders. He gave the following advice,

Well, it’s very, very difficult, very difficult. And, today…it would probably be more [difficult]. Even [though] it should be easier, it’s probably more difficult because the competition is much more sophisticated. And in order to do it, they need to find someone that’s sharp enough, that has knowledge enough that that person can start it and then build around him, and then put heads in…You just can’t start from scratch now. So, you need help to avoid the pitfalls—the pitfalls of starting any kind of business. I think the important thing is to visit directly with the people that are on the firing line, and they can tell you. And start out and talk to some of the companies that they helped start. That’s the way to get the feedback—that’s the best way.

8. Identify Advantages. When developing an entrepreneurial center, it has to be relative to the specific needs of its service region. To best meet these identified needs, ECs then need to examine their unique connections to the community and determine their competitive advantage. Once the EC has been strategically aligned with the local community and the college, Director D recommends that the center focus on “…two or three initiatives—and have built success. Don’t go in too wide or spread yourself too thin…Don’t try to be all things to all people.” Having a clear vision and understanding of the role of the JPEC contributed to its successful development and implementation at NIACC.
Existing Entrepreneurship Centers

1. Create Self-sustaining Model. It is important that entrepreneurship centers understand that “...we are not a revenue generator,” as expressed by President A. He addressed the lack of revenue that ECs receive from entrepreneurs, and explained that “…entrepreneurs don’t have the funds to be paying huge program costs, and course programs, and stuff like that. They take every penny they have and put it toward their initiative.” He also stated that, “I’ve started two of these centers in my career, and both had to be regarded as important services to the region, and invested in with college resources [and] public resources—neither were able to fully sustain their own operations.” Director D agreed that, “One of the problems with entrepreneurial education is that entrepreneurs, or budding entrepreneurs, tend to have darn little money, and what little money they have they need to plow into businesses, which are vastly underfunded.”

As explained by President B, as an entrepreneurial center “…you have to be in it for the long haul, and you have to start thinking about...trying to really kind of change some [EC] practices to create a revenue model that’ll self-sustain.” He suggested that “…maybe a stronger model to fund it over time—a more self-sufficient model,” would enhance the sustainability of the JPEC, and similar ECs. An ideal goal is to “…build that model so [an EC] can sustain without state funding—without a ‘John Pappajohn.’ Our goal is not to be tied to somebody else’s funding at the end of the day.”

2. Emulate Best Practices. Early within his role as the JPEC’s director at NIACC, Director A realized that, “I couldn't do it by myself; I had to do it with a lot of partnerships and relationships.” He expressed an appreciation of the knowledge and experiences held by others, and explained how he approached the development and implementation of the JPEC at NIACC,
I spent an enormous amount of time, way more than the guys that were there before me, building personal relationships with other community colleges, and high schools, and other organizations. I wanted to build that network so I'd have a legion of people with me, arm-in-arm, as we were trying to transform the ecosystem. It's a lot easier to transform the ecosystem with a group of people than it is by yourself, and that was hammered home to me when I got to NIACC.

Even for established centers, it is recommended to emulate the best practices of others. Director B suggested that ECs, “First do some research on other centers…spend a significant amount of time learning from the other centers that have grown the last 15 years, or so.” He considered that to be “…the actionable step you could take if you had that idea and you were thinking of pursuing a center.” He noted that, “Back then, there weren't that many centers. John really brought this forward…certainly in Iowa. If a community college wanted to do this now, I think you could learn from other centers.” Therefore, “one major lesson is reach out and model on best practices. You wouldn't have to really recreate. You could definitely model and make it fit your area and proceed if you had the energy behind it.”

3. Engage Campus Faculty. The inclusion of campus faculty in the implementation efforts of an EC is necessary throughout all stages of development. As recommended by Director D, “Find out what faculty across campus want from entrepreneurship,” and collaborate on curriculum development and learning opportunities. Director A expressed that although he was proud about “…the relationships that we were able to build across the campus…whether it's with continuing ed, the academic program, et cetera,” there was an important relationship that was unintentionally overlooked. He explained that,

I didn’t build a stronger relationship with the academic head, and I should've. I had a tight relationship with the president, I had a tight relationship with those other people,
but I did not have the kind of relationship I wish I would've had with the academic person. I didn't because I was working with the president directly. When I went to the academic stuff to start on that, I didn't read the pitch right. I assumed the president was taking care of that for me, and boy was I wrong. So that really put me cross-wise with the academic head, and that was probably the one political mistake.

Reflecting further upon this, Director A stated that, “It would've been a heck of a lot easier on stuff if I would've gotten on it…it's kind of like asking your fiancée’s father if you could get her hand in marriage—I didn't do that on the academic side, and I got burned.” He stated that although “we got it done, it was a lot more painful than it needed to be.”

4. Develop Succession Plan. A consideration that was mentioned by participants, but not overly emphasized, was the necessity to have a succession plan in place. This is a required consideration for any aspiring entrepreneur, and most definitely a standard component of any business plan. However, it is not a pressing concern within the context of an academic organization—where thoughts regarding such are more reactive versus proactive. As stated by Director B,

Even for here, as a really good strategic academic question, NIACC faces what happens when I'm not in this role on the academic side? Let's say I'm gone—what's hardwired to keep the center and this role so tightly together? Right now, it's obviously personal relationships and interests. It made perfect sense for a linkage. If I'm not around and somebody else is teaching business classes that are entrepreneurship, I don't know the degree that it's hardwired, like in the large universities. I have no idea. Here, it's maybe not hardwired, but I think it will be possible for my successor, whenever that time would come, because it's small on a scale. [The JPEC director and administrative assistant] could walk up and talk to the new person and teach them and integrate.
Director B then addressed this further, but added the dimension of competent, committed leadership. He stressed that once a center has acquired the right leaders, the next task is to keep them in place and encourage collaborations. He stated that, “First of all, [what is needed] is a structure to keep a core group of committed people involved; that would be a best practice. Whether that's through a board, or people in positions, have those energetic people involved.” Along with this thought, he also provided “best practice number two,” which consisted of, “without question,” the need to “collaborate with others—don't compete!”

5. Evaluate Center Progress. One of the most important considerations when developing an EC is how the progress of the center will be measured. From the JPECs very beginning, John Pappajohn indicated three key metrics that were to be reported to him annually, which included: the number of new businesses started, the number of jobs created by those businesses, and the total number of participants within JPEC programs. As presented by Director B, it is imperative that ECs, “Do a good job of keeping score of who you impact because that's a huge part of your story later.”

When determining the metrics for the JPEC at NIACC, Director D began by “…creating the vision,” followed by “…creating the metrics that would support the vision of where you want to be.” Once the metrics were established, he stated the necessity to track and report on those metrics “to make sure that you’re actually accomplishing what your goals were.” To track the progress of the JPEC’s success at NIACC, Director D explained that “…we check back and see how well our customers or clients were doing that started businesses. We found—and we understood from the results—that we were actually making a difference—especially with our clients.” In the end, he felt that “…that’s one of the most important things—are businesses that get started or get help from you—are they having success? And how do you measure success? I mean, are they still in business in a few years?”
6. **Collaborate with Community.** Over time, community colleges have evolved into institutions that dedicate much of their efforts toward workforce and economic development within their communities. In doing so, community colleges are expected to design and implement new educational programs and opportunities that address the needs of students, as well as the business community. An examination of case studies of new educational programs indicated that three key factors—effective leadership, effective faculty members, and ties to local business and industry—are necessary for successful sustainability of campus entities.

7. **Ever-changing Curriculum.** Similar to that of many academic institutions, curriculum change within community colleges is a process that involves the constant addition of new programs and courses, and elimination of outdated and obsolete coursework. Most commonly, new coursework is developed to meet the educational needs of a specific employer and “designed to result in a curriculum that both respects tradition, and responds to the needs of students and communities” (McNutt, 1995, p. 14). This “ever-changing” curriculum ensures that offerings remain relevant and aligned with current industry practices, which differentiates community colleges from other higher education institutions.

Once the key components of an entrepreneurship center have been determined and the developmental decisions have been made, Director A emphasized the need to move quickly during the initial stages of implementation. His recommendation was that when developing an entrepreneurship center, “You got to win, but you got to win fast…so focus and go deep and hard, and that'll be a game changer.” He then explained that, “We had literally just got courses created and we started teaching them. I think I taught two out of the three before I left, because I wasn't there that long. So we were just trying to get integrated into the business school.

8. **Foster Experiential Learning.** Also considered to be an important component of ECs is the presence of experiential learning opportunities within the curriculum. To provide
students with a variety of entrepreneurship experiences, community colleges are uniquely positioned to reach out to community professionals and bring their expertise into the classroom. The development of experiential learning opportunities offered by an EC is an on-going process, with the intent to enhance students’ learning experiences through real-world interaction with business owners and entrepreneurs.

**General Framework**

As identified by Creswell (2009), “theories serve different purposes in [differing] forms of inquiry” (p. xxiii). This study followed an inductive process that began with data collection, from which broad themes (or categories) were developed. According to Creswell (2009), the next step involves development of a “generalized model or framework” based upon the findings (p. 63). Although the purpose of this study was not to develop an implementation model, it does provide a strong foundation for entrepreneurial center development. Being an underrepresented area of research within existent literature, entrepreneurial center development within community colleges also lacks a presence of related theory, which is the necessary foundation upon which an EC implementation framework is developed. Based upon the critical role of strong leadership and effective organizational structure, as identified by the respondents, the General System Theory (von Bertalanffy, 1968) provided the theoretical foundation for this study.

**General System Theory.** Ludwig von Bertalanffy (1968) identified a system as “a complex of interacting elements that are open to—and interact with—their environments.” He considers such systems to be “self-regulating,” meaning that they self-correct by means of feedback (Clark, 2014). The results presented within this study indicate that there are important elements that must be present from inception, and well-aligned with all other components and the Center’s direction. In consideration of these necessary components for successful EC
implementation, utilizing Bertalanffy’s General System Theory (1968), the model within Figure 5.1 below reflects the interrelations of the study’s findings.

*Figure 5.1. Adaptation of the General System Theory to reflect ‘system’ of NIACC’s JPEC*

Drawing upon the many roles and experiences had by each administrator throughout the implementation of NIACC’s JPEC, their insight provides valuable guidance for future center development. These implications prove valuable not only to Iowa’s community colleges, but also to those in other regions of the country with similar interests in workforce and economic development, through the establishment of an entrepreneurship center. Additionally, in the context of EC implementation within a community college, the findings of the study further contribute to existing bodies of literature, which include (but are not limited to) entrepreneurship-focused curriculum, academic program development, program integration within existing campuses, and the role of administration, faculty, and staff in the development and leadership of entrepreneurship centers.
Limitations

The generalizability of a qualitative case study tends to be limited, given that the intention is not focused on generalizable findings (Creswell, 2009). This study’s primary limitation is that it focuses on only one community college—North Iowa Area Community College. Since NIACC is the only community college in Iowa with a John Pappajohn Entrepreneurial Center for study, the findings are considered “context-specific,” and may not be generalizable to similar institutions outside of Iowa’s community college system (Holloway & Brown, 2012, p. 19). However, as stated by Lincoln and Guba (1985), “the responsibility of the original investigator ends in providing sufficient descriptive data to make such similarity judgments possible” (p. 298). For qualitative researchers, the use of triangulation provides the “sufficient descriptive data” necessary to assess the transferability of the study’s findings.

Consideration will also need to be given to the contextual aspects of this study by any college interpreting the results, given that “experience is contextual and cannot nor should not be decontextualized” (Corbin & Strauss, 2008, p. 12).

In consideration of the variety of participants’ involvement with programmatic development and initiatives, those who were selected for interviews may have limited knowledge of program implementation, influencing their ability to offer insight on success factors and recommendations. To minimize this, purposive sampling was employed to lessen that possibility. Each participant was chosen based upon their key role within the development of the JPEC at NIACC, since only those who had actively participated in the planning and development of that JPEC could provide first-hand knowledge based upon their actual experiences. However, although this method of sampling was necessary based upon the research interests of the study, it may provide limited outsider perspective.
Another potential limitation pertains to the use of interviews as the primary means for data collection. Given that an individual “does not always act or think logically and in predictable ways, this approach cannot ever be completely precise” (Holloway & Brown, 2012, p. 16).

Interviews are subject to the participant’s recollection of their experiences and their willingness to share the intimate details of their experiences. When completing interviews, there is an assumption that the participants will be transparent and answer questions genuinely. However, this is dependent upon their willingness to openly discuss their experiences. To combat this and maintain the trust of each participant, I was flexible when scheduling interviews to accommodate their schedules, and they were encouraged to contact me at any time throughout the study. Additionally, participants were presented the opportunity to provide input to the interview transcriptions, as well as the researchers’ analysis of the data.

Lastly, while researchers may strive for complete objectivity, “no research can be totally value-free and objective, especially not qualitative, which is characterized by personal engagement and immersion in the research setting” (Holloway & Brown, 2012, p. 22). Qualitative researchers inevitably bring their backgrounds—perspectives, education, knowledge, and bias—to their research (Corbin & Strauss, 2008). Additionally, interviewees’ responses may present bias, given their direct involvement with and advocacy for entrepreneurial development. To minimize bias, each participant was purposively selected by Dr. Larry Ebbers—given his personal connections with NIACC administration—due to their significant knowledge of and involvement with NIACC’s JPEC development—as well as their willingness to participate. Furthermore, the interviews were read and analyzed by multiple readers: the researcher and her faculty advisor, with input sought from Dr. Larry Ebbers regarding the results chapter (Chapter IV) and the discussion chapter (Chapter V).
Recommendations for Future Research

While the results of this study closely align with the identified key components discussed within Chapter II, they also illuminate several potential areas for further study. It is suggested that additional research be conducted in the primary areas outlined below, as related to entrepreneurial center implementation within community colleges. Most importantly, further study should focus on: development of a framework for EC implementation within community colleges, a statewide examination and comparison of all JPECs within Iowa, the overall economic impact of community college entrepreneurial centers, and a longitudinal study to determine the effectiveness of entrepreneurial centers in relation to long-term business success.

Development of an Entrepreneurial Center Framework

Ultimately, the intended outcome is to create a greater presence of entrepreneurial resources, education, and opportunities made available through Iowa’s community colleges, which thereby enhances economic and workforce development. Therefore, it is proposed that additional ECs be considered for implementation within Iowa’s community college system, allowing for extension of entrepreneurial education and services to all 99 counties across the state—far beyond the nine-county region served by NIACC’s JPEC. The John Pappajohn Entrepreneurial Center at NIACC, being the only JPEC within Iowa’s community college system, will help lead the way for implementation of additional entrepreneurial centers in Iowa.

Based upon the findings within this study, future research could explore the viability of an EC framework that could serve as a guide for community college EC implementation; NIACC’s JPEC would serve as the framework from which other centers are developed. However, while the sample size was appropriate for this study, it may not be a true representation of the EC implementation needs and considerations for all community colleges. Therefore, it is suggested that further research be conducted to explore the unique needs of each
community college in Iowa, as well as beyond. Furthermore, upon establishment of additional ECs within Iowa’s community college system, it is also proposed that future research examine the impact of such on the host campus, the surrounding community, and the local economy.

**Statewide Examination of JPEC Operations**

Although the focus of this qualitative case study was the John Pappajohn Entrepreneurial Center at NIACC, in order to develop an EC framework, it is recommended that an examination of all five JPECs in Iowa be conducted. In addition to NIACC’s JPEC, there are also JPECs at each of Iowa’s regent universities: Iowa State University, University of Iowa, and University of Northern Iowa, as well as Drake University. These four universities, along with NIACC, should be examined to identify similarities and differences, and to determine the prime contributors to each JPEC’s success. The findings would further identify the necessary foundational elements and considerations for the successful implementation of an EC.

An examination of the additional four JPECs located in Iowa, in comparison to the JPEC at NIACC, could also help determine the effects of varied placement of entrepreneurship-related coursework within a community college. This distinction is beneficial for accurate placement of entrepreneurial academics when developing an EC. Based upon the findings of this comparison, entrepreneurship coursework could be integrated within the campus structure where it is most beneficial for the EC, the college, and the students.

**Role of Faculty.** Given their responsibility for the delivery of high-quality entrepreneurial instruction, as well as supplemental educational offerings, faculty involvement is essential to an EC’s success. However, each of Iowa’s five JPECs has a different level of faculty involvement in the JPEC’s curriculum, and consequently in the interconnectedness of the JPEC with other campus entities. Dependent upon the integration and involvement of faculty within an EC’s curriculum, the quality and variety of entrepreneurial coursework may vary.
Furthermore, without the inclusion of faculty, important opportunities for networking and program enrichment may be lost. Given this study’s concentration on the initial development and implementation of the JPEC at NIACC, the presence of entrepreneurship-related coursework was minimal. Therefore, it is recommended that further research explore the evolution and intended direction of NIACC’s entrepreneurship curriculum, in comparison to that of the additional four JPECs in Iowa.

**Economic Impact of Entrepreneurial Centers**

Although this study minimally addressed the environmental impact of a community college’s entrepreneurial center, it is recognized that the presence and contributions of such are extensive and positive. However, the mention of “success,” as related to any EC included here within, is solely based upon self-reported indicators, separate from that of independent confirmation. Furthermore, the purpose of this study was not to determine whether or not NIACC’s JPEC was economically successful, nor the degree to which it contributed to the economic development of the local community. To ascertain such, an in-depth examination of NIACC’s discrete financial data would be necessary, in addition to collection of each business’ financial information, and that of NIACC’s regional service area.

**Longitudinal Study of Entrepreneurial Center Effectiveness**

As derived from this study, an effective extension of entrepreneurial resources has been achieved by NIACC’s JPEC, but additional follow-up with each business would allow for a long-term analysis of the JPEC’s effectiveness in terms of continued business success. President B recognized the need for continued communication and engagement between the JPEC and its clients, and suggested that a longitudinal study be conducted to track the progress of each business that utilizes the services of the JPEC at NIACC. He recommended that entrepreneurial centers “…stay engaged with customers and clients on a little longer term basis, to help with that
longevity piece as they get up and running, and continue to grow.” This would also provide the EC with valuable feedback obtained directly from business professionals, regarding the need for potential modifications or improvements to the current organization or operations, based upon the direct feedback of entrepreneurs and business owners in the field.

**Summary**

This qualitative study focuses on discerning the components and considerations perceived to be most important for the success of a new entrepreneurial center within Iowa’s community colleges—or within any community college. While there is no perfected path to follow that ensures successful and flawless implementation, this study does present the critical components and considerations necessary for EC implementation, as identified through the varied experiences of administrators and industry professionals.

Through in-depth interviews with the leaders of the JPEC’s implementation at NIACC, its development was closely examined for identification of the most essential components and considerations for EC implementation. The themes presented in Chapter IV provide foundational guidance, and are based upon the proven direction and lived experiences of the participants within this study. The results are especially valuable to Iowa’s community colleges, but are also transferrable to EC development outside of Iowa.

The compilation of the participants’ responses, as presented within Chapter IV and Chapter V, will serve as a guide for future implementation of ECs within community colleges, thereby positively influencing the composition of Iowa’s CCs, while also enhancing Iowa’s workforce and economic development efforts. Through the identification and inclusion of necessary elements and proven strategies, as provided by industry and academic professionals, it allows for collaborative adaptations by administrators, investors, and community partners, in order to best meet the needs of each institution and community.
REFERENCES


APPENDIX A. IOWA CODE 260C.1 STATEMENT OF POLICY

**260C.1 Statement of policy.**

It is hereby declared to be the policy of the state of Iowa and the purpose of this chapter to provide for the establishment of not more than fifteen areas which shall include all of the area of the state and which may operate community colleges offering to the greatest extent possible, educational opportunities and services in each of the following, when applicable, but not necessarily limited to:

1. The first two years of college work including preprofessional education.
2. Vocational and technical training.
3. Programs for in-service training and retraining of workers.
4. Programs for high school completion for students of post-high school age.
5. Programs for all students of high school age who may best serve themselves by enrolling for vocational and technical training while also enrolled in a local high school, public or private.
6. Programs for students of high school age to provide advanced college placement courses not taught at a student's high school while the student is also enrolled in the high school.
7. Student personnel services.
8. Community services.
9. Vocational education for persons who have academic, socioeconomic, or other handicaps which prevent succeeding in regular vocational education programs.
10. Training, retraining, and all necessary preparation for productive employment of all citizens.
11. Vocational and technical training for persons who are not enrolled in a high school and who have not completed high school.
12. Developmental education for persons who are academically or personally underprepared to succeed in their program of study.
APPENDIX B. DIRECTORY OF IOWA'S 15 COMMUNITY COLLEGES

<table>
<thead>
<tr>
<th>Iowa Community College</th>
<th>President/Chancellor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast Iowa Community College</td>
<td>Dr. Liang Chee Wee, President <a href="mailto:weel@nicc.edu">weel@nicc.edu</a></td>
</tr>
<tr>
<td>North Iowa Area Community College</td>
<td>Dr. Steven Schulz, President <a href="mailto:schulste@niacc.edu">schulste@niacc.edu</a></td>
</tr>
<tr>
<td>Iowa Lakes Community College</td>
<td>Ms. Valerie Newhouse, President <a href="mailto:vnewhouse@iowalakes.edu">vnewhouse@iowalakes.edu</a></td>
</tr>
<tr>
<td>Northwest Iowa Community College</td>
<td>Dr. Alethea Stubbe, President <a href="mailto:aletheas@nwicc.edu">aletheas@nwicc.edu</a></td>
</tr>
<tr>
<td>Iowa Central Community College</td>
<td>Dr. Dan Kinney, President <a href="mailto:kinney@iowacentral.edu">kinney@iowacentral.edu</a></td>
</tr>
<tr>
<td>Iowa Valley Community College District</td>
<td>Dr. Christopher Duree, Chancellor <a href="mailto:Christopher.Duree@iavalley.edu">Christopher.Duree@iavalley.edu</a></td>
</tr>
<tr>
<td>Hawkeye Community College</td>
<td>Dr. Linda Allen, President <a href="mailto:Linda.Allen@hawkeyecollege.edu">Linda.Allen@hawkeyecollege.edu</a></td>
</tr>
<tr>
<td>Eastern Iowa Community College</td>
<td>Dr. Don Doucette, Chancellor <a href="mailto:ddoucette@eicc.edu">ddoucette@eicc.edu</a></td>
</tr>
<tr>
<td>Kirkwood Community College</td>
<td>Dr. Mick Starcevich, President <a href="mailto:mick.starcevich@kirkwood.edu">mick.starcevich@kirkwood.edu</a></td>
</tr>
<tr>
<td>Des Moines Area Community College</td>
<td>Dr. Robert J. Denson, President <a href="mailto:rjdenson@dmacc.edu">rjdenson@dmacc.edu</a></td>
</tr>
<tr>
<td>Western Iowa Tech Community College</td>
<td>Dr. Terry Murrell, President <a href="mailto:terry.murrell@witcc.edu">terry.murrell@witcc.edu</a></td>
</tr>
<tr>
<td>Iowa Western Community College</td>
<td>Dr. Dan Kinney, President <a href="mailto:dkinney@iwcc.edu">dkinney@iwcc.edu</a></td>
</tr>
<tr>
<td>Southwestern Community College</td>
<td>Dr. Barbara J. Crittenden, President <a href="mailto:crittenden@swcciowa.edu">crittenden@swcciowa.edu</a></td>
</tr>
<tr>
<td>Indian Hills Community College</td>
<td>Dr. Marlene Sprouse, President <a href="mailto:marlene.sprouse@indianhills.edu">marlene.sprouse@indianhills.edu</a></td>
</tr>
<tr>
<td>Southeastern Community College</td>
<td>Dr. Michael Ash, <a href="mailto:mash@scciowa.edu">mash@scciowa.edu</a></td>
</tr>
</tbody>
</table>
APPENDIX C. CONTACT INFORMATION FOR IOWA’S JPECS

The University of Iowa
108 Pappajohn Business Building, Suite 160
Iowa City, Iowa 52242
Phone 319-335-1022 Fax 319-353-2445

Iowa State University
2501 North Loop Drive, Suite 1615
Ames, Iowa 50010
Phone 515-296-6532 Fax 515-296-6714

University of Northern Iowa
Curris Business Building, Suite 264
Cedar Falls, Iowa 50614-0130
Phone 319-273-7350 Fax 319-273-7512

North Iowa Area Community College
500 College Drive
Mason City, Iowa 50401
Phone 641-422-4111 Fax 641-422-4129

Drake University
2847 University Avenue
Des Moines, Iowa 50311
Phone 515-271-2188 Fax 515-271-2187
## APPENDIX D. NIACC’S JPEC ADVISORY BOARD MEMBERS

<table>
<thead>
<tr>
<th>Member</th>
<th>Professional Title/Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Pappajohn</td>
<td>President (Honorary), Equity Dynamics Inc.</td>
</tr>
<tr>
<td>Dr. Steven Schulz</td>
<td>NIACC President</td>
</tr>
<tr>
<td>Jamie T. Zanios</td>
<td>Special assistant to NIACC President</td>
</tr>
<tr>
<td>Terry Schumaker</td>
<td>NIACC Continuing Education Dean/ Director of Economic Development</td>
</tr>
<tr>
<td>Chad Schreck</td>
<td>President and CEO, North Iowa Corridor Economic Development Commission</td>
</tr>
<tr>
<td>James Erb</td>
<td>Charles City, Mayor</td>
</tr>
<tr>
<td>Robert Perry</td>
<td>Educator/Former Mayor of Northwood</td>
</tr>
<tr>
<td>Laura Wood</td>
<td>Agriculture &amp; Business Division Chair &amp; Instructor, NIACC</td>
</tr>
<tr>
<td>Jayson Ryner</td>
<td>Instructor/Vocal Music Director, NIACC</td>
</tr>
<tr>
<td>Bob Klocke</td>
<td>Senior Vice President, First Citizens National Bank</td>
</tr>
<tr>
<td>Neil Fell</td>
<td>Market President/Licensed Mortgage Broker, Reliance State Bank</td>
</tr>
<tr>
<td>Brenda Dryer</td>
<td>Executive Director, Mitchell County Economic Development Commission</td>
</tr>
<tr>
<td>Tom Jolas</td>
<td>Realtor, Schoneman Realtors</td>
</tr>
<tr>
<td>Rick Whalen</td>
<td>Butler/Grundy Renewable Energy Credit</td>
</tr>
<tr>
<td>Terry Wisner</td>
<td>Former Chief Financial Officer &amp; Executive Vice President, TeamQuest Corporation</td>
</tr>
<tr>
<td>Steve Weiss</td>
<td>Value-Added Science and Technologies</td>
</tr>
<tr>
<td>Natalie Hammer</td>
<td>Adjunct Instructor, Waldorf University; Former VP, HMR Supplies &amp; CR Holland Crane Service, Inc.</td>
</tr>
<tr>
<td>Scott Moorman</td>
<td>Owner/Operator, Moorman Clothiers</td>
</tr>
<tr>
<td>Ronnie Pitzen</td>
<td>Sales &amp; Marketing, OmniTel Communications</td>
</tr>
<tr>
<td>Ted Vosburg</td>
<td>Owner, Terminal Properties</td>
</tr>
</tbody>
</table>
## APPENDIX E. NIACC'S ENTREPRENEURSHIP A.A.S. DEGREE

### First Year - First Term

<table>
<thead>
<tr>
<th>Course</th>
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<td>BCA-215</td>
<td>Computer Business Applications</td>
<td>3 s.h.</td>
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<tr>
<td>BUS-102</td>
<td>Introduction to Business</td>
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</tr>
<tr>
<td>BUS-130</td>
<td>Introduction to Entrepreneurship</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>BUS-162</td>
<td>Workplace Professionalism+</td>
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<tr>
<td>MGT-101</td>
<td>Principles of Management*</td>
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**Total: 15 s.h.**

### Second Term

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<td>ACC-111</td>
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<tr>
<td>BUS-122</td>
<td>Emerging Business Practices and Technologies</td>
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</tr>
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<td>BUS-152</td>
<td>Creating a Company</td>
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<td>MGT-170</td>
<td>Human Resource Management</td>
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<td>MKT-110</td>
<td>Principles of Marketing</td>
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**Total: 15 s.h.**

### Second Year - Third Term

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<td>BUS-185</td>
<td>Business Law I</td>
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<td>ENG-105</td>
<td>Composition I</td>
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<tr>
<td>FIN-100</td>
<td>Introduction to Finance</td>
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<td></td>
<td>Business Elective(s)</td>
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**Total: 15 s.h.**

### Fourth Term

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<tr>
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<tbody>
<tr>
<td>BCA-152</td>
<td>Comprehensive Spreadsheets**</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>BUS-269</td>
<td>Insurance and Risk Management</td>
<td>3 s.h.</td>
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<tr>
<td>ENG-106</td>
<td>Composition II***</td>
<td>3 s.h.</td>
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<tr>
<td></td>
<td>Business Elective(s)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td></td>
<td>Natural Science/Mathematics Elective(s)</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

**Total: 15 s.h.**

**Total Program Hours: 60 s.h.**
IOWA STATE UNIVERSITY

PARTICIPANT INFORMATIONAL LETTER

Title of Study
Developing a Framework for Implementation of Entrepreneurial Centers
Within Iowa’s Community Colleges

Introduction
You are invited to participate in a research study conducted by Kelly Jondle, the principal investigator (PI), under the faculty direction of Dr. Larry Ebbers. You have been selected due to your involvement or association with the establishment of the John Pappajohn Entrepreneurial Center (JPEC) at North Iowa Area Community College (NIACC). Your expertise in relation to community colleges, center development, and/or the enrichment of community workforce and economic conditions, allows for a rich contribution of knowledge that would also enhance the entrepreneurial offerings available within Iowa's community college system—benefitting both students and the community.

Purpose
The purpose of this study is to assist in the development of an “Entrepreneurial Center Strategies for Efficient Development” (ECSED) framework, based upon identification of the factors that positively impact the success of entrepreneurial centers (ECs). The ECSED framework will be used for the implementation of additional ECs within Iowa’s community colleges. Specifically, this study focuses on the John Pappajohn Entrepreneurial Center at NIACC, as the foundational academic institution for the proposed ECSED framework.

Procedure
Your participation within this study would include a one-on-one interview with the principal investigator, during which you will be asked a series of open-ended questions that address your specific role in the development of the JPEC at NIACC—and identification of recommended strategies for the successful implementation of entrepreneurial centers within Iowa’s community colleges. The interview questions are designed to allow for an in-depth discussion of your role in relation to the development of the JPEC at NIACC, and address your expert suggestions and recommendations for successful EC development within Iowa’s community colleges. Each interview will be conducted at an agreed-upon location, with an anticipated length of 60 to 90 minutes. The interviews will be audio-recorded and transcribed by the PI for analysis and clarification purposes only.

Benefits
The information gained from this study will contribute to existing literature related to community college program development, as well as the role they play in workforce and economic development. This study will address the advantageous role of ECs upon implementation within community colleges, and provide a framework for doing so.

Jondle 1
**Risks or Discomforts**

There are no known risks or discomforts associated with your participation within this study. You may choose not to take part in the study or to end participation at any time, for any reason, without penalty or negative consequences—participation is completely voluntary. While actively participating in the interview, you have the right to omit any questions that you would prefer not to address, and the principal investigator will ask no further questions.

**Confidentiality**

The study-related documents and audio-recordings for each participant will be assigned a unique numeric label, known only by the principle investigator. Additionally, the audio-recordings will only be used by the PI for transcription purposes. Following transcription of all interviews, the recordings, interview transcripts, and participant-related documentation will be stored in a locked cabinet at the university, in the office of the study’s faculty advisor; only the PI and faculty advisor will have access to study-related materials. The information obtained during this study may be published in scientific journals or presented at scientific meetings, but the data will be presented as aggregate data.

There is a risk that participant identities could become known, due to the existence of only one community college in Iowa with a JPEC. Also, the prominent role that John Pappajohn plays within Iowa’s higher education institutions makes his associations with NIACC, and the participants within this study, more easily ascertainable. However, every effort will be made on the part of the researcher to ensure participant confidentiality.

**Costs and Compensation**

You will not incur any costs due to your participation within this study, and no compensation will be provided for study participation.

**Consent**

If you agree to participate within this study, your involvement will consist of a recorded interview, and completion of an informed consent form. By signing the consent form, you acknowledge that you are voluntarily making the decision to participate in this research study, and certifies that you have read and have an understanding of all study-related information, as presented.

**Contact Information**

If you have any questions or concerns regarding this study, please feel free to contact either the principal investigator, Kelly Jondle, at 515.290.8287 or jondle@iastate.edu, or the faculty advisor, Dr. Larry Ebbers, at 515.290.9854 or lebbers@iastate.edu. If you have any questions or concerns about your rights as a research participant, please contact the Office for Responsible Research at Iowa State University: IRB Administration 515.294.4566; Program Director 515.294.3115; or IRB@iastate.edu.

**Thank you!**

Jondle 2
Dear [POTENTIAL PARTICIPANT],

My name is Kelly Jondle, and I am a current doctoral candidate in Higher Education Administration at Iowa State University. Under the guidance of Dr. Larry Ebbers, I have been encouraged to contact you for participation within my dissertation research, entitled: Developing a Framework for Implementation of Entrepreneurial Centers within Iowa’s Community Colleges.

The purpose of this study is to assist in the development of an “Entrepreneurial Center Strategies for Efficient Development” (ECSED) framework, based upon the identification of factors that positively impact the success of existing entrepreneurial centers (ECs). The ECSED framework would be utilized to establish ECs within additional community colleges in Iowa. To do so, this study focuses on the John Pappajohn Entrepreneurial Center (JPEC) at NIACC, as the foundational academic institution for the proposed framework.

Your participation would include the following:

• Understanding of the attached “Participant Informational Letter.”
• Responding to this email stating your interest in participation.
• Scheduling a one-on-one interview during Summer 2015.
• Completing an interview lasting approximately 60 to 90 minutes.
• Reading and signing an “Informed Consent to Participant” document.

Thank you for your continued appreciation of and commitment to the advancement of Iowa’s Community Colleges—your participation would be greatly appreciated! If you have questions at any time, please feel free to contact me at jondle@iastate.edu or 515.290.8287, or Dr. Larry Ebbers at lebbers@iastate.edu or 515.290.9854.

Sincerely,

Kelly L. Jondle

Principal Investigator
Doctoral Candidate, M.Ed., M.F.C.S
Iowa State University | School of Education
jondle@iastate.edu | 515.290.8287
IOWA STATE UNIVERSITY

PARTICIPATION RECRUITMENT by Phone

Greeting
• Good morning/afternoon, [POTENTIAL PARTICIPANT'S NAME]
• My name is Kelly Jondle, and I am a doctoral candidate in Higher Education Administration at Iowa State University.

Introduction
• Under the guidance of Dr. Larry Ebbers, I have been encouraged to contact you for participation within my dissertation research, entitled: Developing a Framework for Implementation of Entrepreneurial Centers within Iowa's Community Colleges.
• The purpose of this study is to development an “Entrepreneurial Center Strategies for Efficient Development” framework (referred to as “exceed”), based upon the factors that positively impact the success of existing entrepreneurial centers.
• The ECSED framework will be used to establish entrepreneurial centers within additional community colleges in Iowa.
• To do so, this study focuses on the John Pappajohn Entrepreneurial Center at NIACC, as the foundational academic institution for the proposed framework.

Requirements
• Your participation would include:
  o An understanding of the study’s “Participant Informational Letter,” which can be discussed over the phone, but it will be emailed to you, as well.
  o Scheduling a one-on-one interview to take place this summer.
  o A timeframe of approximately 60 to 90 minutes to complete the interview.
  o A signed copy of the study's "Informed Consent to Participant" document at the time of the interview—before data collection begins.
  o Potential contact following the interview for clarification of responses.

Questions
• Do you have any questions about the study that haven’t been addressed?
• Thank you for your appreciation of and commitment to Iowa’s Community Colleges—your participation would be greatly appreciated!
• If you have additional questions at any time, please feel free to contact either:
  o Myself: jondle@iastate.edu or 515.290.8287, or
  o Dr. Larry Ebbers: ebbers@iastate.edu or 515.290.9854

Thank you!

Jondle 4
IOWA STATE UNIVERSITY

INFORMED CONSENT TO PARTICIPATE

Participant Signature for Study Inclusion

Title of Study:
Developing a Framework for Implementation of Entrepreneurial Centers
Within Iowa’s Community Colleges

Dear Participant:

You are invited to participate in this research due to your involvement or association with the establishment of the John Pappajohn Entrepreneurial Center (JPEC) at North Iowa Area Community College (NIACC). Your expertise in relation to community colleges, center development, and/or the enrichment of community workforce and economic conditions, allows for a rich contribution of knowledge, drawn from your personal experiences. Your participation within this study serves to enhance the entrepreneurial offerings available within Iowa’s community college system—benefitting both students and the community.

Purpose of the Project
This study will assist in the development of an “Entrepreneurial Center Strategies for Efficient Development” (ECSED) framework, based upon identification of the factors that positively impact the success of existing ECs. The ECSED framework will be used for the implementation of additional entrepreneurial centers within Iowa’s community colleges. Specifically, this study focuses on the John Pappajohn Entrepreneurial Center at NIACC, as the foundational academic institution for the proposed ECSED framework.

Procedure
This study is comprised of a two-phase data collection process that includes document analysis and structured interviews—beginning in July of 2015, and concluding the following fall. Each participant within this study will be contacted through email or by phone, and provided with the “Informed Consent to Participate” document. Upon agreement to participate, he/she will complete the “Informed Consent to Participate” form—prior to any data collection. The PI will provide clarification of the terms and requirements, as necessary.

Each interview will be conducted individually with the PI, and will follow the guidelines as presented within the “Interview Procedure & Questioning” document. Respondents will be asked a series of open-ended questions that will address his/her specific role in the development of the JPEC at NIACC, as well as identify recommended strategies for the successful implementation of entrepreneurial centers within Iowa’s community colleges.
The interview questions are designed to allow for an in-depth discussion of your role in relation to the development of the JPEC at NIACC, and address your expert suggestions and recommendations for successful EC development within Iowa’s community colleges. Each interview will be conducted at an agreed-upon location, with an anticipated length of 60 to 90 minutes. The interviews will be audio-recorded and transcribed by the study’s principle investigator, to be used for analysis and clarification purposes.

The document analysis component of this study will examine various documents related to the establishment and operation of the JPEC at NIACC, including: performance metrics, program audits, center offerings, NIACC board meeting minutes and action items, JPEC advisory board minutes, JPEC promotional materials, and NIACC and JPEC publications.

**Risks or Discomforts**

There are no known risks or discomforts associated with participation within this study.

**Benefits**

The information gained from this study will contribute to existing literature related to community college program development, as well as the role they play in workforce and economic development. This study will address the advantageous role of ECs upon implementation within community colleges, and provide a framework for doing so.

**Participant Rights**

Participating in this study is completely voluntary. You may choose not to take part in the study or to end participation at any time, for any reason, without penalty or negative consequences. While actively participating in the interview, you have the right to omit any questions that you prefer not to address, and you may end the interview at any time—without penalties or repercussions. The principal investigator will ask no further questions. If you have any questions about the rights of research subjects or research-related injury, please contact the Office for Responsible Research at Iowa State University, Ames, Iowa: IRB Administration, (515) 294-4566, IRB@iastate.edu; Program Director, (515) 294-3115.

**Confidentiality**

The study-related documents and audio-recordings for each participant will be assigned a unique numeric label, known only by the principle investigator. Additionally, the audio-recordings will only be used by the PI for transcription purposes. Following transcription of all interviews, the recordings, interview transcripts, and participant-related documentation will be stored in a locked cabinet at the university, in the office of the study's faculty advisor; only the PI and faculty advisor will have access to study-related materials. The information obtained during this study may be published in scientific journals or presented at scientific meetings, but the data will be presented as aggregate data.
There is a risk that identities could become known in the research, due to the existence of only one community college in Iowa with a JPEC. Also, the prominent role that John Pappajohn plays within Iowa’s higher education institutions makes his associations with NIACC, and the participants within this study, more easily ascertainable. However, every effort will be made on the part of the researcher to ensure participant confidentiality.

**Costs and Compensation**
You will not incur any costs due to your participation within this study, and no compensation will be provided for study participation.

**Consent**
If you agree to participate within this study, your involvement will consist of a recorded interview, and completion of an informed consent form. Your signature acknowledges that you are voluntarily making the decision to participate in this research study, and certifies that you have read and have an understanding of all study-related information, as presented.

Signature of Participant ___________________________ Date ____________

As the principle investigator, I am voluntary and knowingly giving each participant the informed consent to participate within this study, and possess the legal capacity to do so.

Signature of PI ___________________________ Date ____________

**Questions**
You are encouraged to ask questions at any time during this study.
For additional study-related information, please contact the following:

**Principal Investigator:**
Kelly L. Jondle
jondle@iastate.edu
515.290.8287

**Faculty Advisor:**
Dr. Larry Ebbbers
lebbers@iastate.edu
515.290.9854
INTERVIEW PROCEDURE & QUESTIONING

Official Protocol for Conducting Interviews

Date // _______________
Participant Identifier // _______________
Interview Location // ________________________________
Position during NIACC’s JPEC Development // _______________________
Preferred Method of Contact// ________________________________

INTRODUCTION

☐ Introduce yourself
☐ Discuss the purpose of the study
☐ Provide informed consent
☐ Provide structure of the interview (audio recording, taking notes, identifier)
☐ Ask if they have any questions
☐ Test audio recording equipment
☐ Follow interview protocol for questioning

QUESTION GUIDE

Demographics
• Age
• Education: degrees attained; colleges attended
• What is your current or most recently held position?

Background to center foundation [for NIACC participants]
• Can you tell me about the # of years you have been at NIACC &/or the JPEC when the EC was founded (JP): What was your relationship to NIACC.
• Can you tell me about your career trajectory after the center was founded—such as positions you held following the JPEC’s establishment.
• How was JP approached with the initial idea to implement an EC at NIACC?
• How much of the EC was financed through fundraising versus friendraising, or other means?
Center creation

- What was your role in the development of the JPEC at NIACC?
- Who were the key contributors or drivers of the JPEC’s development?
- What were your interactions with John Pappajohn throughout development of NIACC’s JPEC?
- What was JP’s role throughout the establishment of NIACC’s JPEC—initial idea, planning, development, and implementation?
- What best practices should be included in EC strategies for CC implementation?
- Can you identify the other directors, administrators, or contributors that played a significant role in the establishment of the JPEC at NIACC?
- What accomplishments or contributions are you most proud of related to the JPEC at NIACC?

Center functioning

- Can you tell me about the organizational structure of the Center?
- How would you describe how the JPEC at NIACC functions?
- What is the main difference between NIACC’s JPEC and the other JPECs in Iowa?
- What is the relationship of the JPEC at NIACC with other campus units, such as entrepreneurship majors?
- What role should entrepreneurship faculty have within ECs in CCs?
- How are entrepreneurship-based non-credit and credit-based coursework/offerings integrated within NIACC’s structure?
- Tell me about problems or difficulties you have encountered while developing the JPEC at NIACC?
- How is the JPEC at NIACC financed?
- Tell me about the stakeholders of the JPEC at NIACC, and their role?

Impact of center

- What are the advantages and disadvantages of having an EC within NIACC—a community college?
- What role and impact has the JPEC had in relation to NIACC?
- What impact has the Center had on the local community, as well as the larger community?
- Do you have suggestions for future offerings or services that should be provided by the JPEC?
- How do you measure the success of the center? What are the most effective measures?
- What are the key contributing factors to the success of an EC within a CC?
Suggestions for other centers

• What advice would you give to other community colleges wanting to establish an EC on their campus, similar to the JPEC at NIACC?
• What important lessons learned would you share about the development of the JPEC at NIACC?
• Is there anything related to the establishment or implementation of NIACC’s JPEC that you wish you could do differently, or suggestions you would make?
• Are there existing CC ECs that could serve as positive models for ECs within Iowa’s CC system?
• What do you foresee as potential obstacles for other CCs in Iowa wanting to establish similar ECs?
• What other information would you like to share?
• Whom else should I speak with regarding the initial establishment of NIACC’s JPEC?
• Can you provide a few names of businesses—positively impacted by the JPEC at NIACC—that I could also speak with?

MATERIALS TO BE COLLECTED:

□ NIACC and JPEC mission and vision statement
□ NIACC advisory board meeting minutes and action items
□ JPEC performance metrics
□ JPEC program audits
□ JPEC promotional materials
□ List/brochure of JPEC offerings/services/academics
□ Past/present publications related to NIACC’s JPEC
APPENDIX G. NIACC'S IRB RESEARCH APPROVAL

Research Proposal Form

Note: Please complete this form and attach brief responses to the issues raised, keeping in mind that the primary concern is the potential risk—physical, emotional, or other—to the participants, as well as the protection of their rights. Provide copies of all questionnaires, consent forms, or other documents to be used in the inquiry. The Institutional Review Board (IRB) must have enough information about the transactions with the participants to evaluate the risks of participation. Assurance from you, no matter how strong, will not substitute for a description of the transactions.

Submit the proposal and supporting documents to the Institutional Review Board, c/o Office of Institutional Research, Room AB109, Pierce Administration Building.

Principal Researcher: Kelly L. Jondle
Title: Doctoral Candidate, Higher Education Administration
Institution/Department Affiliation: Iowa State University/School of Education
Address: 1620 Lagomarcino Hall, Ames, IA, 50011
Phone: 515.290.8287  Email: jondle@iastate.edu

Other researchers in project (provide same information as for principal researcher)

Faculty Advisor: Dr. Larry Ebbers
Title: University Professor
Institution/Department Affiliation: Iowa State University/School of Education
Address: N221a Lagomarcino Hall, Ames, IA, 50011
Phone: 515.290.9854  Email: lebbers@iastate.edu

Purpose of Project (check all that apply):

☒ To fulfill requirements related to course or degree program at a college/university.
☐ Course project (Course name/Institution)

☒ Thesis/Dissertation (Attach summary of proposal made to institution)
☐ Other (Please describe)

☑ For my own scholarly interest
☐ Other (Please describe)  proposed grant project.

Research Title: Developing a Framework for Implementation of Entrepreneurial Centers Within Iowa's Community Colleges

Data Collection Start/End Dates (Grant Project POP): July 2015 to Early Fall 2015
Signatures

Certification
I certify that I have read and understand the policies and procedures for research projects that involve human participants and that I intend to comply with the NIACC’s procedures for research involving human participants. Significant changes in the research protocol for an approved study must be submitted to the IRB and approved prior to those changes being put into practice.

Researcher(s):
Signature: ___________________________ Date ____________________
Signature: ___________________________ Date ____________________
Signature: ___________________________ Date ____________________

Certification
I certify that the above researchers have submitted the appropriate documentation to the Institutional Review Board and have been approved to conduct research according to the research protocol indicated by the researchers and in compliance with the NIACC’s for research involving human participants.

IRB Designee:
Signature: ___________________________ Date ____________________

FOR IRB USE ONLY:
Action by the Institutional Review Board (IRB):
☐ Project approved. Date: ___________________________ 
☐ Project is exempt. Date: ___________________________ 
☐ Project not approved. Date: ___________________________ 
☐ IRB approval is not required. Date: ___________________________ 
☐ Project is not research according to the federal definition.
☐ Project does not include human subjects as defined by the federal regulations.
APPENDIX H. LIST OF COURSES TAUGHT

The Art Institute of Austin courses taught:

RS100 Fundamentals of Business
In this course, students are introduced to the fundamentals of business. Macroeconomics, labor relations, time management, human resources management, and basic marketing principles are covered. No course prerequisites.

FRM130 Textiles
Fabrics and soft goods are explored from their raw state through processing, spinning, weaving, and finishing. In order to facilitate an understanding of correct application, the characteristics of fibers, yarns, and fabrics are studied. The course also examines the nature of man-made and natural fibers, and their product uses and characteristics. Content includes discussions of yarns, fabrics, finishes, design methods, aesthetic application, and ordering specifications.

FRM210 Sales & Event Promotion
This course is a workshop in which students design and prepare a sales promotion package. The instructor acts as a facilitator and guide to ensure upon completion of this course, students will have thoroughly explored the process of crafting, marketing, and sales promotion that is carefully targeted and positioned to reach the goal of generating sales.

FRM222 Event & Fashion Show Production
Students will be introduced to a range of skills needed to produce a successful store event or fashion show. During this course, students will gain insight into the role of creative and technical experts involved with the runway, backdrop, special effects and lighting, music, models and choreography, hair and make-up and video teams.

FRM223 Visual Merchandising
Students learn the importance of eye appeal and consumer buying habits. Students create their own displays using the latest principles and techniques in the visual organization of merchandise.

FRM233 Business Ownership I
Students plan the foundations for opening and management of a small store: sales, budgets, market research, and staffing. This course is a workshop in which students design and prepare the beginning business plans necessary to open a retail store. The instructor acts as facilitator and advisor to the student, but all decisions and choices will be made solely by the student.

FRM235 Brand Marketing
As the retail environment changes, marketing strategists need to learn new techniques that create an identity for their products & services, & how to use that identity to support sales. This course is an introduction to the essential concepts & skills of brand marketing.
FRM313 Business Ownership II
Students have previously completed the planning of a small retail store: financing, budgets, market research, and inventory. This course is a final workshop in which students design and prepare supporting business components necessary to open a retail store. Students will base all projects for this course on the business plan from Business Ownership I.

FRM320 Trends & Concepts in Apparel
A comprehensive study of cultural and social issues that affect fashion and the emergence of trends. Students will analyze the meaning and importance of clothing and apply these concepts to contemporary society.

FRM330 Product Development
Students will review design concepts, technology, and the development of merchandising in the modern market. Upon analyzing target markets, students will source, cost, and develop a product for that market–including a prototype product and a professional presentation.

FRM331 Current Designers
Students analyze the dynamics of world famous designers. Analyze different designers garment construction techniques. Describe, identify and contrast famous designer’s styles of the past and present.

FRM334 Special Topics in Fashion & Retail Management
This course is designed to change on a regular basis. It will look at a specific area of Fashion and Retail Management and will give students an opportunity to look at this area in-depth. Students will learn through lecture, field trips, hands-on experience and experimentation and will create a final project in this specific area.

FRM420 Web Marketing
This course focuses primarily on marketing on the Web, addressing the elements and requirements of information distribution, advertising, or sales in this new medium. The content of the course includes an overview of major online services, portals, and developing content aggregators. Students learn how to modify traditional marketing theories and strategies as well as the demands and opportunities of the Web.

FRM431 Fashion Capstone
This course is a workshop in which students finalize all aspects of a business plan necessary to open a retail business. The instructor acts as a facilitator and advisor, but all choices and decisions will be made solely by the students. Upon completion of the course, students will have a comprehensive business plan that at the “A” level can be used for actually opening a business and that can be part of a portfolio presentation. Lesser grades would require improvement before being “investor ready.”

FRM439 Fashion & Retail Management Internship
Fashion students are encouraged to seek internships that are similar to their career aspirations after graduation. They are responsible for finding and securing internships on their own, with minimal assistance from Ai Career Services and the FRM department. Students complete weekly reports in regard to their work efforts, and their supervisor’s complete weekly evaluations based upon the student’s professionalism and contributions.
Texas State University courses taught:

**FM1330 Introduction to Fashion Merchandising**  
A Survey of the fashion industry including an overview of the development, production and distribution of fashion goods and services.

**FM2330 Fashion Promotional Strategies I – Fashion Aesthetics**  
The study of promotional strategies unique to the fashion industry. Emphasis is placed on techniques used at the retail level.

**FM3332 Fashion Promotional Strategies II – Visual Merchandising**  
The study of promotional strategies unique to the fashion industry. Emphasis is placed on techniques initiated by manufacturers and wholesalers of fashion products.

**FM4338 Enterprise Development**  
Principles and procedures used in creating successful enterprises to meet consumer demand, including consumer research, logistical issues, and strategic planning. Examines various product and service offerings in traditional and non-traditional outlets. Prerequisite: Senior standing or consent of instructor.