The Mentor's Tale: Cognitive Apprenticeship and Entrepreneurial Education - A Narrative Study

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In closing, I hope that I have honored Juvenal who said, “Qui non proficit, deficit.”

_The secret defined_
_No matter the obstacles -_
_Keep moving forward._
Dedication

This thesis is dedicated, with love, to Anne Marie Conway - stalwart supporter, draft reader, confidant, and prodder who taught me to “just be.” Without you, I would not have started this journey, much less finished it. I love you (more) and remember: sum quod eris.
Abstract

This narrative study focused on the stories of three experienced entrepreneurs who serve as mentors to inexperienced entrepreneurs within the confines of a higher education setting devoted to entrepreneurial education. The study sought to explicate the mentors’ transition from entrepreneur to mentor-of-entrepreneurs and to uncover the nature of the experiences that the mentors share with their mentees using Cognitive Apprenticeship theory as a lens. The study revealed that the participants developed an identity as a mentor-of-entrepreneurs as a natural extension of their previous identities as mentee and entrepreneur. When serving as a mentor, the study participants use their own experience-stories as vehicles for transferring tacit knowledge related to entrepreneurial activities, including stories of success and failure. The study also revealed a number of emergent themes including: the use of metaphorical characters to describe an ideal team for an entrepreneurial endeavor; the participants’ concern about a rise in a media-driven, socially constructed view of an entrepreneur as solely the leader of a large, venture-capitalized endeavor; and the rise of individuals who adopt the moniker of entrepreneur but who are focused on fame accretion rather than financial gain or social entrepreneurship. Important implications of the study include the manner in which these concerns might impact entrepreneurship and entrepreneurship education, insight into the manner in which development of an identity as a mentor to nascent entrepreneurs occurs, the ways in which entrepreneurship education programs might be strengthened through a wider application of the Cognitive Apprenticeship model, and suggestions for future research.

Keywords: Entrepreneurship education, Entrepreneurship, Mentoring, Cognitive apprenticeship, Tacit knowledge, Narrative research.
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Chapter 1 - Introduction

Statement of the Problem

Entrepreneurial activity is critical to the functioning of modern economies. This is particularly true of the U. S. Economy (Kirchhoff & Phillips, 1988; Neumark, Wall, & Junfu, 2011) where small enterprises make up a significant proportion of the overall economic activity (United States Department of Labor - Bureau of Labor Statistics, 2014). Recent studies however (e.g. Haltiwanger, Jarmin, & Miranda, 2013) have cast doubt on the thesis that job creation is solely a function of firm size. Rather, it is small firms that survive beyond the initial start-up period that contribute a disproportionate number of new jobs through a high rate of expansion as the business matures (Haltiwanger et al., 2013).

Ramayah, Ahmad, and Char Fei (2012) showed that prior experience as an entrepreneur is highly correlated with future entrepreneurial success. It is also known that the success of entrepreneurial efforts is hampered by a lack of appropriate mentors (Carsrud, Gaglio, Olm, & Churchill, 1987) and inadequate education and training focused on entrepreneurial skills development (Kirby & Ibrahim, 2011). To help improve start-up firm survival rates, Haltiwanger et al. (2013) conclude that there may be a role for programs that “help entrepreneurs start and grow dynamic young firms that boost overall net job creation” (p. 360). Thus, the development of entrepreneurial education programs that combine effective mentoring with entrepreneurial content and skill development can lead to an improved economic environment through increased job growth.

Topic.

Some have recognized the need for specific education in what may be termed the entrepreneurial arts and sciences (Bergh, Thorgren, & Wincent, 2009; Carlsson, Acs, Audretsch,
& Braunerhjelm, 2009; Carsrud et al., 1987; Dutta, Li, & Merenda, 2010; Kirby & Ibrahim, 2011). In fact, entrepreneurship has been gaining acceptance as an academic field in its own right rather than as a subspecialty of another field (Aldrich, 2012). Within the confines of entrepreneurial education, St-Jean and Audet (2012) noted the desirability of mentoring as a means to mitigate inexperience-based failures in new enterprises. It has also been shown that both depth of knowledge and breadth of knowledge contribute to entrepreneurial success (Dutta et al., 2010).

Education focused on entrepreneurship has been fostered at institutions of higher education such as Babson College over the last 25 to 30 years (Aldrich, 2012). Recent interest in the field of entrepreneurial education is evidenced by programs such as the Northeastern University Center for Entrepreneurship Education, founded in 2012 (Collette, 2012). This center seeks to develop a model for graduate and undergraduate entrepreneurial education that combines traditional formalized education in entrepreneurship topics, experiential education, and mentoring relationships. A key feature of this program and other such efforts is the development of master entrepreneur-apprentice entrepreneur relationships designed to foster an increase in the rate of entrepreneurial knowledge and skill development in nascent entrepreneurs.

Experienced entrepreneurs are in a unique position to serve as conduits for the transmission of expert knowledge of entrepreneurial effort. Borne of their own experience, their mastery of the entrepreneurial knowledge-space, the various processes that tap into that space, and the skills required to actualize that knowledge can serve as a rich resource for those with less experience. Such experts may rely on various knowledge transmission/skill development strategies instinctively unless they have access to prior education focused specifically on learning theory. A deeper understanding of the ways in which experienced entrepreneurs engage in
mentoring activities with less experienced entrepreneurs allows for the identification of common educational strategies employed by these experts. Further, an explication of the thought processes employed by experienced entrepreneurs in their interactions with those less experienced can lead to key insights into the mentoring process in the context of entrepreneurial education including the nature of the *tacit knowledge* (Polanyi, 1966/2009) shared by the expert entrepreneur.

**Research problem.**

This study seeks to explore the ways in which experienced entrepreneurs draw on their own experiences, successes, and failures to guide the development of nascent entrepreneurs. Specifically, this study is focused on the actions taken by mentors with prior experience as entrepreneurs and on uncovering the development of the educational strategies used by these mentors as they work with apprentice entrepreneurs.

**Justification for the research problem.**

Mitrano-Méda and Véran (2014) state that research focused on entrepreneurial mentoring is still a developing field while Leitch and Harrison (2008) contend that research into the nature of entrepreneurial learning is important in terms of “exploring the process of learning in the context of entrepreneurial practice” (p. 8). Moreover, Dutta et al. (2010) showed that entrepreneurial education programs that provide depth in term of specific entrepreneurial content and breadth in terms of the span of content across disciplines provide a marked advantage to students of entrepreneurship. It is also known that appropriate mentors can foster accelerated development in new entrepreneurs (Carsrud et al., 1987).

While the exposure of students to specific content associated with entrepreneurship, such as business planning or capital access strategies, is relatively easily accomplished, developing
course content that presents broader perspective, including access to unstructured or tacit knowledge gained through experience, presents greater challenges (Crossan, Lane, & White, 1999; Nonaka & Toyama, 2005). This is due to the uncategorized nature of such knowledge. One potential way to increase discipline-specific knowledge while broadening perspective is through the establishment of mentoring relationships. Such relationships can serve to expose the neophyte entrepreneur to diverse disciplinary content including access to unmodified experience-based knowledge held by the mentor. Explication of the learning strategies, formal and instinctual, employed by experienced entrepreneurs as they serve as guides to students of entrepreneurship can help educators develop programs that more effectively meet the needs of future entrepreneurs. In addition, codifying these practices can help entrepreneur-mentors work more effectively with apprentice entrepreneurs.

**Deficiencies in the evidence.**

Studies show that entrepreneurs may build *knowledge capital* through their participation in multiple entrepreneurial efforts (Plehn-Dujowich, 2010; Ramayah et al., 2012). It is also known that mentoring by experienced entrepreneurs can foster development in students of entrepreneurship (St-Jean & Audet, 2012). There are few studies that examine the pedagogical strategies employed by experienced entrepreneurs mentoring apprentice entrepreneurs but Shen, Chou, Hsiao, Lee, and Chen (2012) showed that experienced entrepreneur-mentors should be paired with experienced educators in order to ensure more effective rates of tacit knowledge transfer to students. The implication is that experienced entrepreneurs who seek to foster the development of neophyte entrepreneurs can benefit from pedagogical guidance. In addition, there are few studies that explore the fostering of entrepreneurial mentor/mentee relationship within a higher educational setting from the viewpoint of the mentor. Such studies as do exist (cf.
Lee, 2013) tend to focus on the experience of the mentee or what the mentee learns as a consequence of the mentoring interaction. A quantitative, survey-based study that included mentors in the study population along with students working with those mentors (Stewart & Knowles, 2003) sheds little light on the mentoring process beyond confirming that mentors believe their role to be important and that an effective mentor-mentee relationship is desirable.

**Relating the discussion to the audience.**

Entrepreneurial education is a rapidly developing field in many higher education institutions (Collette, 2012; Gedeon, 2014; Kirby & Ibrahim, 2011; Maritz & Brown, 2013; Ramayah et al., 2012; Ruskovaara & Pihkala, 2013). However, such programs are subject to the same criticisms as any other if graduates are unable to secure employment following matriculation (London, 2013). Pittaway and Cope (2007) reference this concern in their survey of the literature on entrepreneurial education. In addition, it is known that the integration of practice and scholarship is associated with increased effectiveness in terms of human development (Ruona & Gilley, 2009). Educators seeking to craft a degree program in entrepreneurship will be well served by the exposure of the ways in which entrepreneurial mentors foster the transition of their mentees from student of entrepreneurship to active entrepreneur.

The results of this research are anticipated to have immediate applicability within entrepreneurial education programs in a higher educational setting. Further, the knowledge gained as a result of this study is assumed to be useful to new entrepreneurs as they look for mentoring relationships, experienced entrepreneurs mentoring new entrepreneurs in any setting, and to directors of extra-academic centers dedicated to the development of entrepreneurs.
Significance of Research Problem

Modern economies are fundamentally dependent on entrepreneurial activity in order to function as evidenced by the economy in the United States (Kirchhoff & Phillips, 1988; Neumark et al., 2011) where entrepreneurial activities constitute a significant proportion of overall economic activity (United States Department of Labor - Bureau of Labor Statistics, 2014). However, recent studies have cast doubt on the thesis that job creation is solely a function of firm size. Rather, it is small firms that survive beyond the initial start-up period that contribute a disproportionate number of new jobs through a high rate of expansion as the business matures (Haltiwanger et al., 2013). This study serves to address the problem of small enterprise survival by helping to identify the ways in which experienced entrepreneurs can foster the development of inexperienced entrepreneurs through mentoring. Such an understanding can lead to more effective practices within the general realm of entrepreneurial education helping to ensure the success of entrepreneurs and their enterprises.

Positionality Statement

Researcher bias can have a strong influence on the conduct of any research (Takacs, 2002, 2003). Sparks (2002) notes that this is particularly true when the researcher is from a different professional and educational background. While Sparks (2002) focuses on race as an indicator of a cultural border, the same boundary conditions can exist between academic disciplines and between individuals with differing professional experience profiles. Briscoe (2005) also focused on race as a defining characteristic of boundary difference, but calls for inclusiveness when seeking to determine who is suited for engagement in academic discourse. In honoring the divisions that exist between individuals and disciplines with differing histories, some may argue that only those with significant entrepreneurship and apprentice master
experience are appropriate as researchers of entrepreneurial mentoring. However, I believe that the differences in my experiences will serve to better attune my observations to a deeper understanding of the process of entrepreneurial mentoring.

**Previous knowledge and experience.**

A significant number of my past family members engaged in entrepreneurial effort in which they bore the risk of their economic activity. This activity took the form of individuals who were skilled craftspeople and tradespeople in addition to farmers, fishers, and oysterers. In the recent past, this entrepreneurial effort extended to activities such as the promotion of various entertainment ventures on the part of my paternal grandfather; an effort that is true to the original understanding of the term entrepreneur. Throughout the late 19th and early 20th centuries, these relatives made their own livelihood rather than earning wages in the employ of others. With rare exception, these family members engaged in a variety of non-wage earning activities. This changed in the 1950s and 60s as the economic environment in the United States changed to place a greater premium on stable employment in the context of the firm. Even in this environment, some family members continued to earn their living through entrepreneurial activities even though wage earners in the employ of others often supported total family income. These wage earners can also be viewed as having provided an economic benefit to the family through employer-provided health insurance as this benefit became the norm in the United States during and after World War II.

Beyond this family history, I am currently a full-time faculty member in the College of Professional Studies at Northeastern University where I teach in the Project Management graduate degree program. I moved into this role about three years ago after a long career as an employee of various firms in a variety of industries. I’ve worked in healthcare settings, Naval
nuclear shipbuilding, commercial nuclear power, customer service, information technology, and facilities management. I’ve engaged in engineering work and process improvement efforts as an individual contributor and as a manager. I’ve also worked as a volunteer in various non-profit organizations. All of these efforts were non-entrepreneurial. In my youth however, I did engage in entrepreneurial effort in various forms.

**Researcher lived experience.**

From an early age, my brother and I had a lawn-mowing business that served several clients during the summer. Our father facilitated this early entrepreneurial experience but the risk of purchasing equipment and supplies, the lawnmowers and gasoline for instance, was borne by the two of us. Toward the end of my high-school years, I developed an enterprise that procured scrap newsprint from a volunteer recycling organization that I resold to a moving company as dish wrapping material at a profit. My most recent efforts have revolved around part-time musical adventures but the majority of my adult working experience has been as a wage earner in the employ of others.

As a wage earner throughout my adult life, I’ve had the opportunity to experience many non-entrepreneurial businesses. Within those organizations, I’ve encountered all of the economic fall out associated with a change in business ethos from a more humanistic focus based on reciprocal loyalty to one focused on corporate financial performance. The latter view, of employees as a cost item, was evident in most of these businesses with a concomitant loss of recognition of the human relations aspect of the business.

**Beliefs, prejudices, and opinions.**

As a survivor of the outsourcing, rightsizing, downsizing, and other late 20th century management fads, I’ve come to believe that we need to reassess our reliance on the firm as a
source for economic livelihood, stability, and security. With the rise of a neoliberal view of the role of the firm in relation to society, namely that the sole function of the firm is to maximize stockholder value (cf. Huy, Corley, & Kraatz, 2014), the social compacts that provided for stability within local society have been eroded. These compacts, I believe, were critical to the development of stable civil society through the middle of the 20th century. During the late 20th and early 21st centuries, as corporations increasingly took actions focused on making a monetary profit to the exclusion of all other considerations, executive managers took actions based almost exclusively on quantitative analysis of financial data with little consideration of the impact of those actions within society. Individual employees of these companies found themselves to be subject to the whims of decisions made solely on economic considerations. My own observation is that the elimination of the consideration of the impact on individual human beings and lack of consideration of the non financial impacts of the firm within society caused many to encounter states of personal economic flux that induced high levels of stress. Such a view is supported by research that seems to indicate that a fundamental behavioral shift is underway following the 2009 global recession in terms of employment within the confines of the firm that negates past theories about recession economics (Burger & Schwartz, 2014) and articles in the popular press that are documenting the narratives of those who are discouraged in their search for full-time, gainful employment (cf. Appelbaum, 2014). Relative to entrepreneurial education, my beliefs echo those of Rae (2010) in that I sense that there is a need to move beyond a strict reliance on education focused on the economic benefits of entrepreneurship to embrace social benefits and the need for ethical and social responsibility.

I have come to believe that individuals must return to a more entrepreneurial focus in terms of the nature of work and the means to a livelihood. My argument is that if individuals are
going to be subject to caprice in the realm of personal economics, then asserting some control over their local economic environment is preferable to having their fate decided by a corporate entity. Thus, I believe that fostering an increase in the number of entrepreneurial enterprises, where the actions of the entrepreneur exert greater influence on the local economic environment, benefits individuals in the society as a whole.

In this study, it will be important to review my presumptions that I am impartial (Takacs, 2003) to insure that my own perceptions are valid. While I believe that I am reasonably free of what might be considered the most typical partisanship, my life history predisposes me toward holding some particular prejudices. These known sources of prejudice include:

- High esteem for entrepreneurial effort in general
- Belief that individual entrepreneurship can serve as a backdrop for an improved, more stable local and national economic environment
- Distrust of many late 20th century business trends and practices
- Strong favoritism toward experiential learning and mentoring as a source of knowledge space development.

Taking care to acknowledge these tendencies and to navigate through them in creating this study will help to support the validity of the inquiry.

**Conclusion.**

As I delve further into the research, I will engage in the effort necessary to surface positionality issues including engaging in processes such as critical reflection (Sparks, 2002) on the assumptions and prejudices that I carry into the work. In addition, I will continue to survey the literature on positionality effects, and to develop greater understanding of the role that bias might play in the development of my research.
**Research Central Questions**

The central question for this inquiry is:

Q1 - How do experienced entrepreneurs make the transition from entrepreneur to mentor-of-entrepreneurs?

Leading to sub question:

Q1.1 - How do experienced entrepreneurs make use of their own experience when serving as mentors to inexperienced entrepreneurs?

**Theoretical Framework**

Clandinin and Connelly (2000) outline the tensions that can attend to the explicit identification of a theoretical frame at the outset of a narrative inquiry in their observation that “formalists begin inquiry in theory, whereas narrative inquirers tend to begin with experience as expressed in lived and told stories” (p. 40). That said, this study will use cognitive apprenticeship (Collins, Brown, & Holum, 1991) as a theoretical frame to help to limit the scope of the study. In the context of this inquiry, cognitive apprenticeship theory offers an apt model for the relationship between mentor and mentee, master and apprentice, such as that which exists between an experienced entrepreneur seeking to help develop knowledge and skill in a nascent entrepreneur.

**Cognitive apprenticeship.**

Collins (2006) first outlined his theory of cognitive apprenticeship as an example of a situated learning theory in practice (Brown, Collins, & Duguid, 1989) and later expanded upon the frame (Collins, Brown, et al., 1991). Cognitive apprenticeship found early popularity in the fields of mathematics, reading, and science instruction (cf. Brown et al., 1989; Ritchie & Rigano, 1996). The theory has also been used in the context of clinical medical education (Cope,
Cuthbertson, & Stoddart, 2000; Gardiner & Anderson, 2013; Nickle, 2007) and continues to find utility in the development of online learning environments (Bouta & Paraskeva, 2013). Cognitive apprenticeship has recently been invoked as a framework for entrepreneurial education (Shen et al., 2012).

In outlining the general form of cognitive apprenticeship, Collins (2006), traces the genesis of key ideas within the frame to learning theorists such as Vygotsky (p. 56) and Dewey (p. 52). These two education theorists are often linked through their focus on experience as a vehicle for learning (Glassman, 2001). Dewey is particularly relevant to the concept of entrepreneurial education as a proponent of experiential education (Dewey, 1938/1996) and as an advocate of the notion that learning is constituted within a sociological frame (Dewey, 1897/1982). Collins (2006) also invokes Schön as a source for conceptions related to reflective practice; a seminal concept in professional education (Kinsella, 2010) realms such as entrepreneurial education. In the conceptualization of a learning environment dedicated to professional practice, cognitive apprenticeship can serve as a vehicle for creating conditions in which students develop an understanding of discipline-specific knowledge along with the development of skill in applying that knowledge to the execution of tasks within the discipline.

Cognitive apprenticeship posits a four dimensional learning environment comprising content, or what the expert needs to know, method, or the ways that a mentor can help a mentee develop expertise, sequencing, or the manner in which learning activities should be presented, and sociology, or the social attributes of the environment (Collins, 2006). Cognitive apprenticeship theory highlights that while it may be tempting to focus on content and method, that is, what a student needs to know and how to teach them to know, it is important not to neglect the sequencing of instruction and the social nature of the learning environment.
Collins (2006) further defines sub levels in each of the four dimensions as components necessary for the design of a learning environment that fosters a cognitive apprenticeship approach to learning. Within the content dimension are domain knowledge along with knowledge of expert strategies for heuristics, control, and learning (Collins, 2006, p. 50). In method, Collins (2006) lists modeling, coaching, scaffolding, articulation, reflection, and exploration (p. 50). Outlining the sequencing of learning, Collins (2006) delineates increasing complexity, increasing diversity, and transition from global to local skills as key concepts (p. 50). Finally, relative to the sociology of learning, Collins (2006) describes the need for learning environments which include situated learning, communities of practice, the development of intrinsic motivation, and a fostering of cooperation (p. 50).

In describing the Content domain, Collins (2006) makes a distinction between the set that contains “concepts, facts, and procedures” (p. 50) and the knowledge of strategies that an expert employs within the discipline. These strategies include heuristic strategies or the set of ways in which a task is accomplished, control strategies or approaches that an expert uses when confronted with a new problem, and learning strategies that are employed by the expert to solidify new domain knowledge (Collins, 2006). Content domain items are generally easy to define and may be thought of as one component of entrepreneurial education (Agbim, Owutuamor, & Oriarewo, 2013; Rae, 2010). Content material or domain knowledge is what might typically be found in an entrepreneurial education program focused on business management concerns such as the creation of a business plan, or ways to access venture capital.

The Method domain contains what might be described as the tools and techniques of instruction. As Collins (2006) indicates, these methods fall into three groupings. Group 1 includes what are considered the traditional instructional methods associated with apprenticeship
of modeling, coaching, and scaffolding (Collins, 2006). Group 2 covers methods that help students develop facility with expert problem-solving strategies including articulation, in which the student is encouraged to talk about his or her thinking processes in order to develop sensemaking, and reflection, in which the student is encouraged to think about their own work against the standards of the larger community (Collins, 2006). Group 3 covers exploration as a method that fosters the development of professional competence in defining problems of practice within the discipline (Collins, 2006).

Within the realm of entrepreneurial education, apprentice entrepreneurs might be exposed to an existing entrepreneurial enterprise to experience modeling, be guided in the creation of a plan for their own business as a form of coaching, and given a source of tacit support and a formal safety net of sorts as they begin to run a business enterprise as the mentors provide scaffolding support for the effort. Students might encounter articulation as the mentor encourages them to speak or write about a challenge that they encounter and reflection as they engage in lessons-learned meetings with their peers. Exploration might take the form of acting as a mentor to other, less experienced, students as the apprentice begins to develop the understanding necessary to the ability to think ahead to define future challenges to an enterprise.

Sequencing is an explicit description of the need to order activities in a way that fosters growth while insuring that an apprentice is not completely overwhelmed (Collins, 2006). Within this domain falls the common-sense idea that simple skills should be mastered before more complex skills, that homogeneous problem sets should be presented before presenting those of increasing heterogeneity, and that students should be presented with a comprehensive view of the problem space before working to understand the details (Collins, 2006). Within the realm of entrepreneurial education students might work to do simple financial data entry before setting up
the financial recording system for their enterprise, engage in understanding the financial aspects of the proposed business before considering the impact of market strategy on that financial plan, and developing a conceptualization of their business innovation on the larger world before addressing marketing their product or service to specific market segments or individuals.

Finally, the social aspects of the learning environment are considered through the components of situated cognition, communities of practice, development of intrinsic motivation, and the creation of an environment of cooperation (Collins, 2006). Invoking Dewey, Collins (2006) describes situated learning as creating a simulacrum of the environment enacted by the expert practitioner. Within the entrepreneurial education environment, this might take the form of having students work to create their own small business under the direction of an expert mentor. Teams of students working on the same or similar business can serve to begin the creation of a community of practice within the learning space and/or providing peer feedback on other students’ business ideas. This latter concept may also extend to working cooperatively and tapping into the knowledge of a larger extended team.

One potentially difficult challenge within the higher education environment is that of helping students develop an appreciation for intrinsic motivation when many have been socialized over a lifetime to derive satisfaction from extrinsic motivators such as grades. Within the entrepreneurial education space, the mentor might encourage students to develop a business that is focused within an area of interest to them and to consider the larger social impact of their effort over the extrinsic motivation of the money that might be earned.

As might be imagined, none of these core groups exist in isolation. In fact, the elements of the cognitive apprenticeship model and the intersections of the various domains leads to a rich
environment that helps to frame learning. The principles and the possible intersections between
domains are shown in Figure 2.1.

Figure 2.1

Attributes of Cognitive Apprenticeship Learning Environments

(Adapted from (Collins, Hawkins, & Carver, 1991, p. 177))

The intersection of all four domains, shown in Figure 2.1 as So ∩ C ∩ M ∩ Se, is the
heart of the cognitive apprenticeship model. That is, the conditions for the development of a
cognitive apprenticeship environment are created at the intersection of Sociology, Content,
Method, and Sequencing within the educational setting.

Conclusion

While there may be debate about the necessity of selecting a theoretical frame at to outset
when engaging in narrative work (Clandinin & Connelly, 2000), having a theoretical frame for
this study will help to maintain attention on the fundamental phenomena of interest. That is, choosing cognitive apprenticeship as a theoretical framework will help to ensure that the study is tightly focused on the process of entrepreneurial mentorship and the expert entrepreneur as mentor to less experienced student entrepreneurs. The frame is particularly appropriate in the context of this study as a vehicle for understanding the mentoring process in general and for understanding mentoring in the context of professional education.
Chapter 2 - The Literature

This literature review will provide a history of entrepreneurial education and learning, the place of mentoring as a method for fostering the development of expert knowledge, a brief overview of important learning theorists who have influenced the development of the concept of cognitive apprenticeship, and a brief introduction to the concept of situated cognition. The review will begin with a short history of the concept of the entrepreneur.

The Entrepreneur

Entrepreneurs in some form or another have probably existed since early in human history. Landes, Mokyr, and Baumol (2010), for instance, trace the origins of entrepreneurial effort to Mesopotamia. However, the English definition of entrepreneur has been a rich source of debate over the past century or more (Ralph, 1954; Webster, 1977). Webster (1977) traces the first use of the term entrepreneur to 18th century economist Richard Cantillon and his 1755 work, “Essai sur la nature du commerce en general” (Cantillon, 1755/1964). While it is true that Cantillon (1755/1964) uses the term entrepreneur in the original French, “La circulation et le troc des denrées et des merchandises, de même que leur production, se conduisent en Europe par des Entrepreneurs, et au hazard” (p. 46, emphasis added), for instance, Henry Higgs, in translating the work to English, renders entrepreneur as undertaker rather than entrepreneur (Cantillon, 1755/1964, p. 47) in accordance with the accepted definition of the time. Ralph (1954) traces the origins of the term to Jean Baptiste Say’s original 1803 work on the political economy but in the 1851 translation of the fourth edition of that work (Say, 1821/1851), the translator Prinsop concedes that:

the term entrepreneur is difficult to render in English; the corresponding word, undertaker, being already appropriated to a limited sense. It signifies the master-
manufacturer in manufacture, the farmer in agriculture, and the merchant in commerce; and generally in all three branches, the person who takes upon himself the immediate responsibility, risk, and conduct of a concern of industry, whether upon his own or a borrowed capital. For want of a better word, it will be rendered into English by the term *adventurer* (Say, 1821/1851, pp. 78, emphasis the author’s).

In point of fact, the online version of the Oxford English Dictionary (OED) offers primary and secondary definitions of entrepreneur as: “the director or manager of a public musical institution” and “one who ‘gets up’ entertainments, *esp.* musical performances” ("Entrepreneur," n.d., emphasis in the original) with the political economic definition showing third. This third definition, “one who undertakes an enterprise; one who owns and manages a business; a person who takes the risk of profit or loss” ("Entrepreneur," n.d.), is the one that will serve as the guiding definition for the purposes of this study. The OED provides an example of the use of entrepreneur in this latter sense from a September 15, 1852 letter by one T. Carlyle and 1883 articles by F. A. Walker ("Entrepreneur," n.d.).

In tracing the etymology of the word entrepreneur, the OED references an obsolete form from Middle English (ca. 1100 - 1500), *entrepreneur* [*sic*], derived from the French entrepreneur which was in turn derived from *entreprendre*, “to undertake” ("Entrepreneur," n.d.). The definition for this earlier root word, “one who undertakes; a manager, controller; champion” ("Entreprenour," n.d.), is in line with the third, modern definition and the OED provides written examples from 1475 and 1485 ("Entreprenour," n.d.). Given the scarcity of written examples from the Middle English period (K. LaMan, personal communication, October 30, 2014) and the increased rate of “lexical borrowing” during the period from 1100 to 1500 ("Middle English,"
n.d.), it is entirely possible that the word entrepreneur was being used in speech in its current understanding before appearing in written records.

The modern conceptualization of the entrepreneur finds its roots in the shadow of the Enlightenment and the Age of Exploration in the United States (Cain, 2010), the Industrial Revolution in Britain (Mokyr, 2010), and in the late 19th and early 20th centuries in both countries (Casson & Godley, 2010; Lamoreaux, 2010). In the 20th century, the conceptualization of entrepreneur as an innovator engaged in a high-risk venture gained ascendance through the work of Joseph Schumpeter, the famed Austrian economic theorist (Graham, 2010).

In the context of this study, an experienced entrepreneur is taken to mean a person who has, at some point, taken up the risk associated with the economic or social profit or loss associated with an enterprise focused on a novel and innovative product or service. That is, an entrepreneur is defined as the primary leader of an enterprise designed to return a profit to the entrepreneur through the creation of a novel and/or innovative product or service offering. Further, the enterprise is supported, at least in part, by the capital, labor, and intellectual investments of the entrepreneur. In this context, an entrepreneur is neither an individual in the employ of others nor an individual who invests in, or speculates upon, the entrepreneurial efforts of another individual but is an individual engaged in an effort that involves risk and uncertainty of final outcome and who embraces novelty, creativity, and concerted action toward a defined goal.

In considering the education of the entrepreneur, two separate domains might be considered: innovation and risk. There are strategies for treating technical innovation as a field of knowledge that can be learned (cf. Altshuller, Shulyak, Rodman, Clarke, & Lerner, 2005). However, while risk can be moderated and managed through an expansion of the knowledge
space of the individual, the expansion tends to be borne of experience. This knowledge space includes a combination of anticipatory strategies for knowing what risks might occur, and mitigation strategies that define actions to take when a risk does occur. Successful entrepreneurial activity depends on innovation and creativity on the part of the entrepreneur to a degree but also depends on the successful management of risk. A key argument for the establishment of higher education entrepreneurial education programs rests on the expectation that such programs can help develop the neophyte entrepreneurs’ knowledge of risk management strategies.

**Entrepreneurial Education and Learning**

Aldrich (2012) notes the rise in interest in the general topic of entrepreneurial education since the 1970s and there has been increasing interest in research in the general subject area of entrepreneurial learning since the early part of the 21st century (Harrison & Leitch, 2008) while Kent (1989) describes a “virtual explosion of entrepreneurship education programs” (p. 153) beginning in the late 1970s. As with any newly considered field, there are differing conceptualizations impacted by various external and internal influences. These can lead to a diffusion of educational effort as competing stakeholders advance their own particular vision of education within the discipline. Kent (1989), for instance, charts the treatment of topics that he considered germane to entrepreneurship within economics textbooks of the time and found that no single source covered all relevant topics going on to recommend that educators “would do well by their students to enlighten them through supplemental readings, lectures, or discussion” (p. 161) but neglecting to mention the benefits of mentoring relationships. The interest in formalizing curriculum and curriculum delivery strategies may be seen as an outgrowth of the diffuse nature of conceptualizations of entrepreneurial education at the time.
Entrepreneurship, as a bona fide academic discipline in its own right, has been characterized as having “struggled long and hard for an identity in an effort to be recognized and accepted” (Plaschka & Welsch, 1990, p. 56). This anthropomorphizing of the field of entrepreneurship, that some would disdain as hyperbole, highlighted ongoing concerns about the lack of respect accorded the field in the late 20th century. Noting the hegemony of quantitative methodologies in business school curricula in the mid-20th century and the general insufficiency of such one-dimensional tools in a multidimensional environment, Behrman and Levin (1984) call for an increased emphasis on not only qualitative analysis skills but also entrepreneurial skills. They go on to highlight the dangers of using classroom simulations as a basis for research due to the tendency of such simulations to ignore the complexity of the real-world environment (Behrman & Levin, 1984). This latter criticism has immediate relevance to the field of entrepreneurial education in that one key factor characterizing a successfully trained student of entrepreneurship is the ability to operate successfully in the complex, amorphous, ambiguous, and constantly shifting environments that are characterized not only by economic systems but also by behavioral, sociological, and cognitive systems (Sven, 1998). As Young and Sexton (1997) state, “entrepreneurs are characterized by their abilities to continually initiate and manage multiple tasks in ever changing environments” (p. 224).

Young and Sexton (1997), in a study of entrepreneurial learning processes, contend that entrepreneurial learning fosters the development of a knowledge base which is focused on problem solving that contributes a small business success. In highlighting the need to foster development of the higher order skill of self-directed learning (Grow, 1991), Young and Sexton (1997) advocate for a model of entrepreneurial education that is based on active learner participation. Mitchell and Chesteen (1995) found that experience-based simulations under the
guidance of experts is effective in developing new expert knowledge in mentees and propose an instrument and resulting scale that can help in matching students with appropriate mentors.

In a wide-ranging discussion of entrepreneurial education, Politis (2005) makes a distinction between the learning process and the knowledge thus gained and invokes Kolb’s learning theory in arguing that the entrepreneur develops knowledge by engaging in the process of learning through the transformation of experience (Politis, 2008). This explication of the epistemological and ontological as separate, but related domains highlights a central concern within the general confines of entrepreneurial education. Ramayah et al. (2012) echo the distinction between explicit content knowledge and the tacit knowledge that also contributes to knowing on the part of the entrepreneur. Formal education alone is not considered sufficient for the development of entrepreneurial knowledge within the nascent entrepreneur (Politis, 2008) but formal education, along with mentoring as a part of an educational system that relies on experiential education, can serve as a basis for the development of such knowledge. Young and Sexton (1997) take a similar stance in their development of a conceptual framework for entrepreneurial learning.

Politis (2005) defines entrepreneurial learning as “a continuous process that facilitates the development of necessary knowledge for being effective in starting up and managing new ventures” (p. 401) and relates the process to the experiential learning model advanced by Kolb but cautions that “Kolb’s cyclical model is not fully adequate to understand the complex uncertainties that entrepreneurs have to deal with” (p. 408). Young and Sexton (1997) define entrepreneurial learning as “both the active processes and the cognitive processes entrepreneurs employ to acquire, retain and use entrepreneurial knowledge” (p. 225) with entrepreneurial knowledge defined as “the concepts, skills, and mentality business owners integrate and use
during the course of growing their businesses” (p. 225). Rae (2010) advances an argument that entrepreneurial learning must, of necessity, take place in settings beyond the confines of the organizational bureaucracy that is commonly associated with the higher education academic environment. However, March (1991) argues that learners in an organizational setting, like an entrepreneurial enterprise, balance exploration and exploitation as they seek experience that is ultimately transformed into knowledge. In defining the two, March (1991) contends that “exploration includes things captured by terms such as search, variation, risk-taking, experimentation, play, flexibility, discovery, [and] innovation. Exploitation includes such things as refinement, choice, production, efficiency, selection, implementation, [and] execution” (p. 71). Within the context of entrepreneurial education, the experienced entrepreneur can serve to help temper the riskiest elements of exploration by providing access to the knowledge developed as a consequence of their own explorations while supporting exploitation activities that might be unrecognized by the nascent entrepreneur through the mentoring process. In addition, there are many other elements that might be considered impactful in the development of a new entrepreneur.

Rae (2010) notes that there is a growing realization that entrepreneurial learning, even within a higher education context, takes place in many more environments than are encountered in a typical classroom. The complexity of the connections is highlighted in the passage:

Learning is a discursive, sensemaking process in which people create new reality, by talking and doing, as they learn. Entrepreneurial learning is therefore concerned with how people construct new meaning in the process of recognizing and acting on opportunities, and of organizing and managing ventures. It is much more than acquiring the functional 'knowing', for it involves active 'doing' as well as understanding 'what it is that works'
and realizing that one 'can do it'; therefore, knowing, acting and making sense are interconnected (Rae & Carswell, 2001, p. 153)

When a new entrepreneur engages with a new business enterprise, they may be subject to fear that exposing themselves to a social learning network might pose a risk to their enterprise (Bergh et al., 2009). In a study of participants in a Swedish networking program, Bergh et al. (2009) found that trust built among the entrepreneurs in the program contributed to learning in the cognitive, emotional, and social domains. Thus, entrepreneurial education programs that provide an environment promoting trust among participants can have a positive effect on the development of entrepreneurial knowledge. Rigg and O'Dwyer (2012) demonstrated that entrepreneurial mentors can foster the sensemaking that can help nascent entrepreneurs learn.

Young and Sexton (1997) highlight the unique nature of entrepreneurial learning as a process of developing rather than interpreting. This development of knowledge resides in the tacit dimension (Crossan et al., 1999; Nonaka, 1994) and is a function of the activities undertaken by the entrepreneur and the environment in which the entrepreneur operates. Thus, one of the challenges experienced by any neophyte in any field is that a substantial proportion of the expert knowledge within the field may be tacit knowledge. Agbim et al. (2013) contend that the role of entrepreneurial education is to expose the apprentice entrepreneur to the tacit knowledge of the entrepreneurial community. Brown et al. (1989) liken the process of education in a specific discipline to an enculturation process. The analogy is found in the observation that the cultural practices found within a discipline are as complex to the outside observer as are social cultural practices. In developing within the discipline, as in developing an understanding of any other cultural norms, the knowledge gained “is a product of the ambient culture rather than of explicit teaching” (Brown et al., 1989, p. 34). Hence guides, such as mentors, allow
access to the unstated norms within the culture of the discipline and can, thereby, facilitate
learning. It is only in working alongside experts, observing expert problem-solving strategies,
engaging in practice under the guidance of experts, and receiving expert-provided feedback on
performance that nascent entrepreneurs develop the required tacit knowledge base (Agbim et al.,
2013) in a more efficacious manner (Lubit, 2001). Rigg and O'Dwyer (2012) touch on this idea
in their contention that mentors serve to facilitate knowledge transfer and the reflective practice
that lead to knowledge development but also facilitate entrepreneurial identity development in
the neophyte entrepreneur and serve as “a source of social capital” (p. 324) important to full
participation in the community. In point of fact, the mentor plays a key role in the entrepreneurial
learning process by helping the student entrepreneur develop identity as an entrepreneur (Rigg &
O'Dwyer, 2012). That is, helping the mentee learn to act, think, speak, and function as an
entrepreneur would while enacting the environment of an entrepreneurial effort. Beyond this, and
as alluded to earlier, the mentor serves a key function in helping the apprentice entrepreneur tap
into information that is beyond the realm of personal experience (St-Jean & Audet, 2012). In this
way, the mentor serves as a key bridge to the knowledge residing in the weak tie network
(Granovetter, 1973, 1983).

**Mentoring**

Mentoring is known to help foster the development of nascent entrepreneurs (Ozgen &
Baron, 2007) and to offer benefits within an educational setting over programs that are strictly
content-based (Sullivan, 2000). It is also known that the lack of appropriate mentors can hamper
development in entrepreneurs (Carsrud et al., 1987).

The Online version of the Oxford English Dictionary traces the etymology of the word
mentor as an experienced and trusted advisor to late 15th century France and subsequent English
translations of Fénelon's “Les Aventures de Télémaque” ("Mentor," n.d.). Antony (2002) offers a variety of closely related definitions that can be summarized as: a mentor is an individual who holds knowledge of and experience in a particular realm of professional practice and who serves as a trusted advisor to one of lesser experience in order to help the latter individual develop expert knowledge of the discipline. St-Jean and Audet (2012) describe entrepreneurial mentoring as a “relationship between an experienced entrepreneur (the mentor), and a novice entrepreneur (the mentee), in order to foster the latter’s personal development” (p. 122).

Smagorinsky (2007) provides an interesting perspective of Vygotsky in discussing the role of society in the process of development that holds currency in a discussion of mentoring. In a Vygotskian perspective, students engage in a process of mentor-lead learning that helps them to internalize the norms of the referent social group (Smagorinsky, 2007). The role of the mentor, therefore, is to structure the learning process so that mentees begin to develop disciplinary content knowledge but also begin developing an understanding of the use of that knowledge in a manner that aligns with social group norms. Smagorinsky (2007) also provides insight into the problems that can occur when students arrive in the classroom with an understanding of social norms that differ from those of the school community. Such a clash of norms can result in punishment at the extreme but can impede learning through a breakdown in communication.

Vygotsky’s focus on speech as an element of the learning environment (Smagorinsky, 2007) is another key element of relevance to the entrepreneurial mentoring process. Students engaged in a development process that is situated in a specific discipline are in the position of not knowing “the jargon, the concepts, and other conventions of a particular community” (Smagorinsky, 2007, p. 65). The mentor, in a Vygotskian approach using speech as a vehicle for the development of understanding, serves to help to create an environment in which students feel
safe in exploring ideas and engage in the experience of learning. Roth and Jornet (2014) invoke Vygotsky in noting that experience, in this connotation, implies a conjoining of individual, environment, feeling, and emotion highlighting the primacy of learning as a social experience (Moll, 2014).

Entrepreneurial mentoring, as a source of cognitive and social development, is a recurring theme within the general confines of entrepreneurial education and aligns with ideas advanced by some well-known learning theorists

**Foundational Learning Theorists**

Many new models for entrepreneurial education embrace experiential learning principles including project-based learning (cf. Ferguson, Cawthorne, & Streveler, 2014). This stance is based on the belief that much of what constitutes entrepreneurial learning is encapsulated in the codification of knowledge borne of experience in an entrepreneurial endeavor (Politis, 2005).

Experiential education has been of interest to educators, students, and the public alike for many years. John Dewey offered an early and influential argument for the need and benefit of experiential education in his essay, “Experience and Education” (1938/1996) in which he advocated for a model of learning that built on the lived experience of the student. In the intervening years since 1938, Dewey’s work has been built on by educational theorists such as D. A. Kolb (1984) who incorporated theoretical constructs of Freire, Lewin, Piaget, and Vygotsky to create a model of experiential education that offers a pathway to the creation of learning spaces that can enhance learning (A. Y. Kolb & Kolb, 2005). There are numerous examples that show how experiential learning can enhance student learning in various settings (cf. Sharp, 1997; Yardley, Teunissen, & Dornan, 2012) and serve to inform educational practices. Experiential learning techniques have been applied and/or advocated for in a variety of
disciplines including: Management (Gaur, Kohli, & Khanna, 2009), Medicine (Yardley et al., 2012), and Project Management (Saenz & Cano, 2009). Experiential learning has also been shown to be a useful construct for team-based learning (Graen, Chun, & Taylor, 2006; A. B. Kayes, Kayes, & Kolb, 2005).

There are many educational theorists who are associated with experiential learning. Three key theorists, however, hold particular relevance to the mentoring of entrepreneurs: Dewey, Kolb, and Vygotsky.

**John Dewey.**

In developing his conception of how best to educate, Dewey did not reject out-of-hand the subject content that is the focus of traditionalist/essentialist methods but only the methods in which that content is put to use and the sequencing of the presentation of that content (Dewey, 1938/1996). This idea presages Collins (2006) and the conceptualization of cognitive apprenticeship as a means for addressing content and method in addition to the larger sociology of learning. Dewey’s formulation of the use of subject matter subjugates the imposition of a memorization of content facts through drill and repetition to the use of the material to develop “continuing line of activity” (Dewey, 1938/1996, p. 53) that creates the conditions of learning through the use of problem-solving experiences (Dewey, 1938/1996). This melding of the subject content of education with a method that integrates that content with problem-solving experiences forms the basis for Dewey’s theory that students learn best when they are afforded the opportunity to develop knowledge by building on the concrete experience of the child to that given point in his or her lifetime. He contends that theory is not required by past educational techniques bound by tradition but that a sound theoretical grounding is necessary if a new educational model is to be embraced (Dewey, 1938/1996; A. Y. Kolb & Kolb, 2005).
Dewey, though derided by critics during his lifetime as the sponsor of a school of educational thought that resulted in chaos borne of utopian notions of child behavior (Fallace, 2011), was a pragmatist and understood that the development of a new learning model would take time and would have to have a sound theoretical base if it were to be successful. This pragmatism forms the basis for some of the theorists that have come after (D. C. Kayes, 2002; A. Y. Kolb & Kolb, 2005) and helps to foster a sense of practicality in the use of experiential techniques to solve difficulties experienced by educational practitioners (Akella, 2010). The impact of Dewey’s conception that experiential learning is a more effective way to educate has found currency in the theories of adult learning advocated by A. Y. Kolb and Kolb (2005) among others.

David A. Kolb.

David Kolb developed a theory of experiential learning based on the idea that learning takes place as a spiral of experience, sensemaking, and application. In this theory, Kolb drew together the experiential education notions of Dewey, the action research ideas of Kurt Lewin, and Jean Piaget’s developmental model to create a synthesis of ideas that viewed learning as a process borne of experience (D. A. Kolb, 1984). Thus learning, rather than being the memorization of a given set of knowledge (facts), is a continuous and fluid field of experience which leads to an ongoing refinement and greater understanding of ideas (D. A. Kolb, 1984). Such a conceptualization is echoed in the ideas associated with cognitive apprenticeship and aligns with the mentoring model of instruction with the insight that “in expansive learning, learners learn something that is not yet there” (Engeström & Sannino, 2010, p. 2).
Lev S. Vygotsky.

Collins (2006) identifies Vygotsky as a key influence in their development of the concept of cognitive apprenticeship. In discussing the similarities and differences in educational philosophy held by Dewey and Vygotsky, Glassman (2001) hits upon a key point that is relevant to the study of entrepreneurial mentoring. That is, “whether teachers should approach students as mentors who guide or direct an activity, or as facilitators who are able to step back” (Glassman, 2001, p. 3). While both serve to foster development through social interaction, the former, Vygotskian perspective provides means for a co-constructed process of inquiry, discovery, and mastery. Glassman (2001) describes the perspective of Vygotsky as one in which an established member of the community, the mentor, directs the new member, the apprentice, in the use of tools relevant to the community in a manner embraced by the community. This focus on the mentor as an agent for the community who works to effect change in the individual so that they can attain full membership in the group (Glassman, 2001) is a key supporting construct in the development of cognitive apprenticeship.

Summary.

The development of various perspectives of learning in the 20th century played a supporting role in the development of entrepreneurial education as a field of inquiry. Dewey, Vygotsky, and Kolb, in particular, are associated with the creation of a framework for entrepreneurial education initiatives. Their work fostered the development of a viewpoint of learning that embraced notions of experience and learning as a process of transformation within a social environment that leads to knowledge creation. The notion of knowledge as a socially created entity is also found in the concept of situated cognition.
Situated Cognition

Jean Lave is cited as a seminal author in the field of situated cognition and a primary influence in the development of cognitive apprenticeship theory (Brown et al., 1989; Jenlink, 2013).

Situated cognition holds that “learning is inseparable from doing in situ; that cognition and learning are processes of enculturation” (Jenlink, 2013, pp. 185, emphasis the author’s). In the situated cognition model, learning is viewed not as a state of being characterized by the input, successful memorization, and output of a set of facts (Lave, 1991) but as a process undertaken by the learner in a field of inputs that include the information space; the physical, cultural, and social environment space; and the activity engaged in by the learner and other agents within the field (Jenlink, 2013).

Jenlink (2013) offers seven basic assumptions that hold true across all manifestations of situated cognition: 1) learning is focussed on sensemaking, 2) thinking is adapted to the environment in which thought occurs, 3) learning is a social process, 4) agent actions and context of action are inseparable, 5) knowledge is defined by competence gained through lived experience and active engagement in a community, 6) learning is characterized by growth in knowledge valued by a community, and 7) reasoning is manifested by social activity of an actor within the frame (p. 187). Many of these principles are directly aligned with the seven properties of sensemaking (Weick, 1995) and situated cognition may be understood as a process of identity construction, developed through activity of actors within a social frame, within a given environment. Indeed, situated cognition defines a learning process predicated on sensemaking.

Brown et al. (1989) contend that learning designed to produce “robust, usable knowledge” (p. 32) is only possible in learning environment in which the activity of learning and
the context in which learning occurs are considered equally important to the content delivered. In providing examples in which language content is divorced from context, Brown et al. (1989) demonstrate the absurdities that can result and the loss of efficiency that occurs when content is separated from activity. Of particular relevance to entrepreneurial education is the conception that the knowledge of a tool and the use of that tool are contingent on the culture in which the tool is used and the use of the tool in practice (Brown et al., 1989). Thus, it is important to provide not only the tools of entrepreneurship via an exploration of subject matter content such as finance or business planning, but also to provide an environment in which the student might use these tools in a community of practice. In the words of Brown et al. (1989), “students are too often asked to use the tools of the discipline without being able to adopt its culture” (p. 33).

**Conclusion**

This literature review has offered a brief overview of the history of the concept of entrepreneur in order to set the stage for a larger consideration of the concept of entrepreneurial education as a specialty of its own and the relationship of mentoring to learning. In addition, the review presented summaries of the ideas of key educational theorists, Dewey, Kolb, and Vygotsky, who’s ideas have served as a source of inspiration for educators engaged in the development of new entrepreneurs. Finally, the review addressed the concept of situated cognition as a means for developing entrepreneurial knowledge in the nascent entrepreneur.
Chapter 3 - Methodology

The central research questions and sub questions for this inquiry are: Q1 - How do experienced entrepreneurs make the transition from entrepreneur to mentor-of-entrepreneurs? Q1.1 - How do experienced entrepreneurs make use of their own experience when serving as mentors to inexperienced entrepreneurs?

A qualitative design based on a constructivist/interpretivist philosophy will inform the methods developed for this research.

Research Design

A qualitative approach will be used for this study. In this instance, a qualitative approach is appropriate because the questions of interest are related to the lived experience of practitioners rather than testing of hypotheses developed from underlying theory (Creswell, 2012, 2013). Qualitative methods are focused on understanding rather than forecasting results (Pinnegar & Daynes, 2007). In the case of this study, the focus is on understanding how experienced entrepreneurs engage in a mentor/mentee relationship with inexperienced entrepreneurs and how these mentors tap into their past history as entrepreneurs to guide the development of apprentice entrepreneurs. The development of this understanding does not rely on hypothesis testing against a priori theoretical constructs but relies on theory solely as a guide to exploration of the topic.

Research Tradition

For the study of this topic, narrative research provides a means for developing a deeper understanding of the ways in which experienced entrepreneurs foster learning in inexperienced entrepreneurs. The richness of the descriptions found in stories provides entry into the inner world of the participants (Clandinin, 2013; Clandinin & Connelly, 2000). In their original formation of narrative inquiry as a research method, Clandinin and Connelly (2000) sought to
make a distinction between narrative inquiry and narrative analysis or narrative research. In later works however, Clandinin (2007) concedes that the terms are often used as synonyms. The central tenet of the method is that narrative is a way to “understand experience as a narratively composed phenomenon” (Clandinin, 2013, p. 16) that represents a gestalt of the “social influences on a person’s inner life, social influences on their environment, and their unique personal history” (Clandinin & Rosiek, 2007, p. 41). In the case of this study, we are interested in the ways in which experienced mentors use their personal and professional experience to guide their mentees through the process of becoming entrepreneurs and how the mentors experience and make sense of the mentoring process. As such, narrative can serve as the vehicle for understanding the entrepreneurial mentoring experience from the standpoint of the mentor and expose the processes involved in relaying of experiential knowledge to neophyte entrepreneurs. In the context of this study, the use of narrative inquiry allows for the development of an understanding of the chronology of events that occurs as the experienced entrepreneur serves as a mentor to inexperienced entrepreneurs.

Narrative inquiry is useful as a means to capture detailed experiences of a limited number of individuals, often a single individual (Creswell, 2012). Narrative research is unique in that it requires that the work is done by “intruding on people in the course of living real lives and asking them to help us learn something” (Josselson, 2007, p. 538). In terms of method, narrative provides a means for the understanding the individual’s story in terms of place, time, social interactions, and other factors. All of these factors are known to be relevant to learning within the construct of cognitive apprenticeship (Collins, Brown, et al., 1991). This rich exploration of the lived experience of the individual can allow for a finer appreciation of the underlying sense and meaning making of the individual as they recount their story (Creswell, 2013). Because
Experientialists such as John Dewey heavily influence the narrative tradition (Clandinin, 2013; Clandinin & Connelly, 2000), narrative inquiry can lead to insights that have immediate practical impact on practice. In fact, Larty and Hamilton (2011) make a specific case for the usefulness of narrative methods in entrepreneurial research.

**Participants**

Participants for this study will be selected from the population of experienced entrepreneurs who are serving as mentors to inexperienced entrepreneurs within the confines of a higher education setting devoted to entrepreneurial education. A purposeful sampling strategy will be employed (Creswell, 2012, 2013) with a focus on individuals who meet the specified criterion (Creswell, 2013, p. 158). If need be, snowballing (Creswell, 2012) will be employed to expand the pool of likely participants.

In line with the focus of narrative on the individual (Creswell, 2012), this study will be limited in size and will focus on the stories of three participants.

While the constraints on the study population align with the goals of a narrative inquiry, the illumination of the experiences of few individuals through storytelling (Creswell, 2013), it is assumed that the results of the study may not be generalizable beyond the individual, social setting, or time period. However, the importance of such concerns over internal and external validity, important considerations for quantitative research, are subject to debate within the confines of the qualitative research paradigm as noted by Creswell (2013). That said, the processes outlined in the section on trustworthiness are designed to attempt to address the concerns of advocates for a positivist, quantitative analysis-derived conceptualization of scientific rigor.
Recruitment and Access

Prior to commencement of the study and recruitment of participants, all relevant procedures required by the Northeastern University Institutional Review Board (Northeastern University, 2014b) will be completed with formal approval to begin the study received.

All participants will be afforded the protections outlined in the Health & Human Services (HHS) regulations for protecting human subjects ("Protection of human subjects," 2009) and in the relevant Northeastern University policies and procedures (Northeastern University, 2014a).

Participants will be recruited by an initial email and/or social media solicitation for participants. Follow up personal interviews will be used to determine if prospective participants meet the eligibility criteria outlined above and to insure that they are willing to participate in the interviewing and investigation processes. Follow up interviews will be performed in a face-to-face setting, if possible, but may be accomplished via telephone or videoconference.

No extrinsic incentives will be offered for participation beyond the opportunity to derive benefit from the knowledge gained as a consequence of the research. However, some recent research (Zhang, Kim, Brooks, Gino, & Norton, 2014) shows that some individuals derive pleasure from reflecting on documentation of past events even when those events are relatively mundane. Thus, experienced entrepreneurs reflecting on the day-to-day routines of their past entrepreneurial efforts may derive pleasure from the recollection.

Data Collection

Data will be collected through transcribed, semi-structured interviews, field texts, and background historical research of public documents in line with the recommendations of experienced narrative researchers (Clandinin, 2007, 2013; Clandinin & Connelly, 2000; Lieblich,
Tuval-Mashiach, & Zilber, 1998; Riessman, 2008). Interviews will be performed in a face-to-face setting, if possible, but may be accomplished via telephone or videoconference.

All interviews will be digitally recorded and transcribed in a manner that ensures that pauses and other verbal cues are recorded in the transcript text (Creswell, 2013, p. 253). Interviews will be conducted in a setting that allows the participants to fully express their stories and to be comfortable and at ease (Seidman, 2013).

**Data Storage**

Aside from the protection of the confidentiality of the participants, data security relative to the materials collected must be insured. Participant identity will be protected through the use of pseudonyms known only to the researcher and the principal investigator. Materials that may provide clues to the identity of a participant or their location will be edited as necessary to preserve anonymity in the final thesis report. In addition, the following specific protocols will be followed to insure data security.

All original electronic files such as interview audio files, written drafts, and notes will be backed up to an encrypted, cloud-based storage system such as Carbonite for example in order to insure continued access to the materials while providing for confidentiality through data security. Physical security for electronic media such as data cards will be maintained by insuring that all electronic files are stored in encrypted form with password known only to the researcher and the principal investigator when not in the direct possession of the researcher or in a locked cabinet. In addition, all physical materials (field notes, memos, etc.) will be stored in a locked cabinet controlled by the researcher when not in the physical possession of the researcher.
Data Analysis

Narrative inquiry is not a stable research form and is subject to changing conceptions of method and design (Craig & Huber, 2007). However, Riessman (2008) notes that subjecting narrative texts to different analysis methods can highlight different viewpoints within the data and lead to deeper understanding. Larty and Hamilton (2011), in an exploration of narrative in entrepreneurial research, list 33 studies that use various analytic techniques including rhetoric, latent content analysis, poetics, discourse analysis, plot analysis, and content analysis.

Once the transcripts have been member checked, data will be analyzed using a two-step approach. First, categorical-content analysis (Lieblich et al., 1998) based on a directed content approach (Hsieh & Shannon, 2005) will be employed using codes derived from the theoretical frame. This will be followed by an inductive approach based on structural analysis after Gee (Riessman, 2008) to query the sequencing of information within the interview text. All analysis will be extended to look for emerging themes within the narratives of the participants informed by the making of meaning as outlined by Bruner (1990).

Trustworthiness

Criticism of qualitative research by researchers who prefer quantitative methods leads to a long list of questions relative to concerns about the trustworthiness of qualitative research (Merriam, 2009). These include concerns about sample size, randomization, generalization potential, researcher bias absent hypothesis testing procedures, and participant veracity (Merriam, 2009). However, assessing qualitative research in terms of the post-positivist, quantitative-focused conceptualization of trustworthiness is subject to many alternative viewpoints and somewhat conflicting interpretations (Creswell, 2013). This study will adopt the
following conventions to address concerns about the trustworthiness of the work and to ensure study accuracy.

**Validity.**

Creswell (2013) recommends various strategies for validation in qualitative research through the process of *triangulation* and recommends that “qualitative researchers engage in at least two of them in a given study” (2013, p. 253). Creswell (2013) offers several methods for triangulation: peer review; bias exploration; negative case analysis; member checking; rich, thick description; and external audits. Bias exploration and member checking will serve as primary methods for triangulation in this study. In the former, researcher bias exploration and explication will take the form of a positionally statement derived through engagement with *Epocche* as outlined by Moustakas (1994). For the latter, transcripts will be sent to the participants for review, correction, annotation, and amplification during a member checking process as outlined by Miles, Huberman, and Saldaña (2014). Peer review may also be employed. The final presentation and analysis of the data collected through the course of the study will engender thick, rich description (Geertz, 1973) as a further validity check.

**Reliability.**

In turning to reliability, the study will adopt the recommendations offered by Creswell (2013, p. 253) through the maintenance of detailed field texts, the use of a professional quality digital recorder to record interviews, and the use of a computer program (MaxQDA) for collection and analysis of the data. In addition, the transcription of recordings will be undertaken in a manner that renders pauses, breaks in conversation, and other clues to the hidden content of the interview conversation (Creswell, 2013, p. 253). While Creswell (2013) also suggests that reliability can be bolstered through use of multiple coders, measures to provide for intercoder
agreement will not be undertaken in this individual research project given the other measures undertaken to provide assurance of reliability and in the interest of time and logistics.

**Quality.**

In an effort to define narrative study quality, Creswell (2013, p. 259) posits that a “good” study is one in which the author: 1) studies one to three individuals; 2) captures stories that are related to an event that is significant to the individual; 3) creates a timeline that connects the different components of the narrative; 4) relates a narrative that includes the themes, inflections, relationships, and non-verbal aspects of the telling; and 5) brings the researcher into the study as a co-creator.

In this study, every attempt will be made to address these evaluation criteria by: 1) limiting the study population to less than three individuals; 2) focusing on the story of how participants bring their experience to bear to the problem of mentoring new entrepreneurs and the significance that they place on their efforts; 3) exploring the development of the mentoring experience through time and the transference of lived experience to a new entrepreneur; 4) looking for themes through a directed analysis of content of the stories (Hsieh & Shannon, 2005), paying close attention to the sequencing of information related by the participants, and through documentation of extra-verbal cues exhibited during the telling of the story; and 5) relating the researcher’s personal history and experience in the analysis of the data.

**Protection of Human Subjects**

Every attempt will be made to adopt an “ethical attitude” (Josselson, 2007, p. 537) in the execution of this study. Prior to commencement of the study and recruitment of participants, all relevant procedures required by the Northeastern University Institutional Review Board (Northeastern University, 2014b) will be completed and approval to begin the study received.
All participants will be afforded the protections outlined in the Health & Human Services (HHS) regulations for protecting human subjects ("Protection of human subjects," 2009) and the relevant Northeastern University policies and procedures (Northeastern University, 2014a) including the execution of an informed consent form.

Participant confidentiality will be insured through the use of a codebook that will serve as the link between participant names and other identifying information and the actual recordings, transcripts, and field texts (Josselson, 2007).
Chapter 4 - Findings

The purpose of this study was to explore the ways in which experienced entrepreneurs transition to mentors of student entrepreneurs. The study was framed by these questions: Q1 - How do experienced entrepreneurs make the transition from entrepreneur to mentor-of-entrepreneurs? Q1.1 - How do experienced entrepreneurs make use of their own experience when serving as mentors to inexperienced entrepreneurs?

The chapter that follows provides an introduction to the study participants followed by a presentation of the findings of the study in terms of content analysis and a secondary analysis focused on emergent themes within the data.

Transcript data was uploaded to MAXQDA 11 version 11.2.1 ("MAXQDA,"), a qualitative data analysis software program, in order to facilitate the analysis. The program was then populated with codes derived from the categories and subcategories outlined in the literature on Cognitive Apprenticeship (e.g. Collins, 2006). These codes were used to identify segments of the interview texts that provided indication of participant alignment with the concepts engendered by the different aspects of the theoretical frame. This directed content analysis (Hsieh & Shannon, 2005) provided a platform for the initial analysis of the interview data. New codes were added as ideas and concepts emerged that were not reconcilable with the a priori coding scheme. The most significant findings from this analysis are presented in the content analysis section below.

The transcript data was also used as source material for a secondary analysis to expose emerging themes within the texts.
Study Participants

This study focused on three individual who were successful entrepreneurs and who currently serve as mentors to students in entrepreneurial education programs in a higher education setting. Relevant demographic characteristics of the participants, including their gender, a pseudonym randomly created by the name generation tool in Scrivener 2.6 (Blount, 2013), estimated age range, date of interview, and field or fields of entrepreneurial endeavor are shown in Table 4.1 and are arranged in the order in which they were interviewed.

Table 4.1
Demographic Profiles of Participants

<table>
<thead>
<tr>
<th>ID</th>
<th>Gender</th>
<th>Pseudonym</th>
<th>Age</th>
<th>Date</th>
<th>Field(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Technologist</td>
<td>Male</td>
<td>Ron</td>
<td>50 - 60</td>
<td>April 2, 2015</td>
<td>From publishing to IT systems</td>
</tr>
<tr>
<td>The Service Provider</td>
<td>Male</td>
<td>Cole</td>
<td>30 - 40</td>
<td>April 2, 2015</td>
<td>Consumer services</td>
</tr>
<tr>
<td>The Product Developer</td>
<td>Male</td>
<td>Garrett</td>
<td>40 - 50</td>
<td>April 9, 2015</td>
<td>Consumer products</td>
</tr>
</tbody>
</table>

Their individual stories offer insight to the experiences that they share with their students and outline their transition from entrepreneur to service as mentors of student entrepreneurs.

The Technologist.

*A newspaperman*

*Leapt into new media —*

*When did adulthood come?*

On a warmish early spring day I arrived at a courtyard that was swept clear of snow and which contained a small inspirational sculpture (an ancient battle revisited as inspiration or
warning?) and walked to the door. Ron’s home was about midway in the group of condos and was situated so that the front door faced this sculpture. A short wait after knocking on the door, a small note that instructed visitors to knock rather than ringing the doorbell was affixed to the sidelight of the door, I was greeted and ushered into the entryway of the condo.

His stature was slight and conveyed a faintly professorial air, with shaved head, close-trimmed gray beard, and glasses.

My initial impression was that this appeared to be a warm home — carefully appointed and welcoming to visitors. Walking up a few short steps, we entered into the living area of the condo and I began to make small talk as we made our initial introductions.

He then asked me where I’d like to sit and I noticed a barrel back chair that would provide me with easy access to the table where I set up my recording equipment. He took a seat in an Eames-style easy chair that he jokingly referred to as “his wife’s chair.” This arrangement provided us easy orientation for our conversation.

**Ron’s tale.**

‘I guess I’ve been an entrepreneur all of my life — which is probably what happens when you are born into an entrepreneurial family — though no one used that word back then.’

Right after World War II, my father and my uncle, his brother, bought a small business from another guy in the area where we lived. The business did engraved invitations and other typical print shop work — wedding invitations and that sort of stuff.

Though they began with the printing business, they soon expanded into pre-printed greeting cards, party favors, and other such merchandise in a storefront in the city. They expanded that business into toys…and more toys…and more toys — until they had this giant operation. From there, they opened a giant discount store in a former warehouse in
New Jersey. My father was probably one of the first big-box retailers now that I think of it.

I worked there in the summers during college and learned how the business operated. I didn’t really think about it at the time, but that was my life — a family that had this business. Being an entrepreneur, or being entrepreneurial, was not something that we thought about or thought of as anything different than working in the family business.

My first personal experience as an entrepreneur was in graduate school when I took over the operation of the school newspaper. Different groups of students could make a bid to run the newspaper, which was run as a for-profit enterprise, and our group won. I was the editor-in-chief and had to put together a team that was responsible for filling up the news sections, and for paying our reporters, as well as finding advertising and everything else that goes into running a newspaper business. Our team did that for years.

When I finished my graduate degree, I teamed up with a guy in my hometown to start an arts and entertainment newspaper. After that, I came back here to take a research job at my graduate school alma mater and became an angel investor for a school friend who was starting a newspaper in the area. But the biggest jump that I made as an entrepreneur was starting a software business in the mid-1980s. I ran that business for almost a decade before I sold my interest to my partner.

After I sold my business, and in that serendipitous way that things often work, I found that [another] local university was looking for someone to teach in their entrepreneurship program. At the time my main academic interest was in media and communications — that’s the focus of my research and my books, the media industry and
the economics of the industry. They wanted me to teach in the program not for my academic background but for my hands-on experience as an entrepreneur. I decided it would be an interesting opportunity and it was in the business school, which I later found was somewhat different from the communications programs that I taught in previously. The students in the business school tended to take a more pragmatic view of the world and were less interested in embracing idealism for the sake of idealism.

As a group, the business students seem to have a focus on practicality and what may be possible in the near term while the communications students want to ‘save the world’ and ‘become great journalists.’ So, while the communications students have a message that they desperately want to share, the business students just want to get the job done. It’s really just a different cultural norm I think. Both groups are less academically oriented than students who might be in the field such as history, but I found that I felt more comfortable with the business students because they were more grounded in what I see as the ‘real world.’

Teaching students based on my practical experience rather than my academic experience allowed me to share some of the tough lessons that I learned as an entrepreneur. For example, I have a maxim, ‘it’s not sold until you cash the check.’ I can’t tell you the number of times when we were selling software packages that cost tens of thousands of dollars (and this was back in the ‘80s) when we would work on a project for months and months getting everything ready for a sale only to have someone from the customer call from the purchasing office and tell us that the deal was off because of a change in management. I remember once laying on the rug in my office and looking at
the ceiling and saying to myself ‘Jeez - how are we going to do this?’ because I wasn’t sure where the money was going to come from and when I was going to be there.

Another lesson that I share with them is the need to have a lot more cash on hand at the beginning than you think is going to be necessary. I’ve heard people say, and I think it’s dead-on accurate, that you figure out how much you need to get through your first year and then you say, ‘well, let’s be conservative and say that I need more for marketing, and more for development, and more for sales, and more for office space, and more for miscellaneous items, and more for any of a number of things’ and then THAT’S the number you need to have twice of — the number that you originally thought was an extremely generous and conservative number. If you have that money you can spend it on anything that you need it for and shift things around — in my experience marketing is probably the most underestimated — but if you don’t have the cash, you’re dead.

A third lesson is the need to really work distribution channels and figure out how best to get your product out in the marketplace. That’s not always an easy thing to do. One thing that we really didn’t understand back in those days — and something that I share with my students — is that when you are in a cutting-edge business there are certain customers who are early adopters. For software, those people are usually in a business that likes to stay on the cutting-edge and have a bunch of folks who are willing to tinker with the product on their own rather than expecting it to just work. We sold a lot of our stuff to this group at the beginning because we really had a novel product and we just extrapolated that sales success linearly. For a while, the business went like that because we really were selling to these first adopters, but that meant that every one of our systems had to be customized. Unfortunately, there are a lot more customers who just wanted to
buy something off the shelf that was well tested and worked well. I’m not sure that I actually fully understood the need to expand beyond this early group of customers until I had left the business. Selling these highly customized systems to early adopters had a big impact on our service costs that also impacted our product development.

A fourth lesson is the need to anticipate service costs including how service needs impact the whole business. For us the two biggest concerns of the business were customer service and system customization to meet customer demands. We fully understood, however, that we needed to continue developing the product. In our case, our customers were spending a lot of money for our software product and our thought was that we needed to address customer needs immediately. Unfortunately, the need to provide service on highly customized systems often collided with our need to continually develop the product. I mean, when a customer calls in the morning with some problem you have to drop everything to solve that problem, but the same people solving the problem are the people doing the development so they have to drop that development work to help the customer.

The phrase we used often was ‘the urgent drives out the important’ which is very significant concept for a small business that doesn’t have a lot of depth and functions. The lesson for students is the need to be flexible. You come in the morning and you say, ‘Okay we are going to write 200 lines of code today for a new system upgrade.’ But, the customer calls at eight thirty and something blew up and they can’t run their business-critical reports so you have to have the developers spend three hours on that to make the customer happy. Getting the code written was really important because we’ve got to get
the product enhancement completed, but you have to deal with the urgent customer problem so that takes precedence.

The final lesson that I give the students is derived directly from the space that we were in. With a software business like ours, every six months or so you had to essentially have a new product or an almost new iteration of the project because the competition was always coming up with something new. If you have a product like toothpaste, once you design a better version you’re good for five or ten years. Maybe you add a new flavor or something like that, but it doesn’t fundamentally change the product. Software has to change — sometimes dramatically.

For instance, when we were selling our software product, we made a huge decision to port the product from a DOS-based environment to Windows. It took twice as long and cost four times as much, but it gave us a four-month head start on our other major competitor. One thing that I found out through that experience is the need to hire good people and to make sure that they are not just skilled, but that they are a good fit to the culture of the organization that you created. It is good to have people who are thinking in a different way, but you have to be careful to make sure that everyone is on the same page and that often takes time. In my own case, in my own business, I was the guy who was doing the marketing and finance side of things and my partner was the tech guy. Most of the time we worked well, but every once in a while he would promise the customer something without realizing that it was going to take longer than he thought or cost more than he thought.

When I mentor students all of these lessons are things that I believe are useful. The hardest thing, actually, is to give them honest feedback without sounding cruel or putting
a student down. Being critical without criticizing is probably the hardest challenge that I have. The other thing that is challenging is not simply doing it myself. I have to let them work through it. I’m not here to rewrite their proposal for them; I’m here to give them enough comments to get them on the right track. Sometimes it’s faster do it myself, but I really have to think about ‘how do I phrase this so that they catch on?’ I also try to consider the student and their background.

Right now, I’m mentoring some undergraduates and they’ve never had a business course of any kind. With those students, I have to concentrate more on basic business things so that they come up to speed. I essentially had to give them an MBA program in a nutshell. Some of their first draft business plans were pretty rough and the tendency is to shred them, but you have to realize that they’re undergraduates and they don’t really know. It’s not like they’ve read a book and are ignoring it, they just aren’t aware of the material. In that case, you have to go through it very carefully and help them develop those skills. If it’s a former student who I know should know, I can refer them back to the stuff that we’ve done before. Some of them know things, even if they don’t remember them, and I can start at a much higher level.

Most of what I do is fairly short term mentoring to go over some specific thing. We meet and talk and maybe a year or two later they come back with some question. I haven’t really had any cases where I’ve had some sort of longitudinal relationship mentoring a specific student. That might be nice for me, but I’m not sure it’s necessarily best for them. Like when building your own business — you start with investments from family and friends, and then maybe some angel investor who can be helpful, but once you get to a certain point you realize that you’ve outgrown those early sources. For my
students, I realize that at some point they outgrow me — after a while they may actually know more than I do. I’ve had a couple of business experiences, but those are different from theirs and they will learn things from those experiences that I won’t know.

It’s interesting that for most of my life I felt like I was the mentee – I have all of these people that I think back on and consider mentors. One, who was the first person that I met at the business school, was very academic but made a lot of himself — he had a terrific sense of how to work with people and how to separate possibilities from practicalities. Most people wouldn’t call him an entrepreneur, per se, but within the context of the University he did a tremendous amount in an entrepreneurial way. He created a new research center that was totally self-funded, changed the mechanism of funding, and actually worked in a way that was more like a consulting company than a university program. He had insight in the 1970s and 80s that the digital revolution was going to cause a great disruption in the analog world of newspapers — actually anything that was analog. That stretched from newspapers to the old phone system which used analog signal processing. He also realized that government regulations that were based in an analog view of the world were going to run into application issues in the digital world.

These were phenomenal insights at that time and much of what he visualized and researched has come to pass. His entrepreneurial innovation was to research and provide information to wildly different constituencies in a way that would be viewed as non adversarial. By taking funding from many different sources, the output was not viewed as being slanted to anyone group and as a consequence you could be completely honest in your assessments and be viewed in that way by all these different constituencies. I guess that’s probably a seminal experience in my development. I learned a ton from him and
I’ve internalized a lot of that experience and tried to do my mentoring in the same way.

At some point though, something switched and I suddenly found out that I was the adult in the room. It took me a while to look in the mirror and say, “yeah, you’re too old to have mentor anymore” (Ron, personal communication, April 2, 2015).

**The Service Provider.**

*Oh, my first business?*

*Fulfilling the needs of my friends -*

*Always on the move.*

I first met Cole in his office in an administrative services building at a large research University in the Northeast. My general impression was one of a very dynamic, very forceful, very driven individual. Hyperkinetic would be a good word to describe his general affect. This is not a criticism as much as it is an observation. He is imposing not because of size or physical strength but because of his forthright manner and apparent keen intellect. He seems to be someone who might easily exist on a few hours sleep a day. He is somewhat nervous about the impending arrival of his first child and apologizes in advance if he has to cut the interview short. His office is typical in the general fashion of higher educational administrative offices, but is somewhat atypical in that it has a very utilitarian feel and a large personal library. This is an office where actions get taken and stuff gets done rather than an office dedicated to meetings and discussion without purpose. Throughout the interview he makes notes in a small notebook. Are these notes things to consider, thoughts that strike him, or things to do?

**Cole’s tale.**

I was always an entrepreneur of some sort – I was the kid who had the lemonade stand, who was buying wholesale at the local big box store and selling retail to my friends – I
was always engaged in those sorts of activities when I was younger. My first real entrepreneurial effort was a business that I developed in my early 20s offering a service to students to help them move their stuff into their dorm rooms. From that I started a company in the very early days of social networking, and then moved into doing a business that helped companies make use of their cloud-based data across different data silos, and from that I moved into a mobile textbook business. I did take a detour into corporate life following law school when I practiced at a big law firm for years and I’ve since moved on to my current role leading a team that is building a new model for education which is very entrepreneurial in nature but where I am not a typical entrepreneur.

At one of the first venture-backed companies that I ran, I had mentors telling me to get additional coaching as a CEO because this was my first foray into that sort of area. At the time, I thought I could learn it on my own and didn’t have the self-awareness that I have now so I probably didn’t learn as much as I could have. What I try to get students to understand from that experience is that when people are giving you advice you should listen. Most of my mentors were trying to give me advice about personal skills and I was focused more on trying to get them to tell me business strategy things and that was a missed opportunity.

I think you need mentoring throughout your life and for all aspects of your life. That’s something I’ve really made a part of me. There are always new skills to develop and it’s helpful to have a set of friends that you can talk to about things you can’t talk to others about - people that you expect will give you honest and direct feedback.
I know that I’m very passionate and articulate. For some people that makes me very approachable. For others however, and one of my mentors reminded me of that today, it makes people fearful of disagreeing with me. I need to work doubly hard to get those folks to voice that disagreement because I really want to know. I want that feedback. So what is helpful to me is having someone who can help me cultivate that environment. If I can do the same thing for my students then that puts me in a position to help them advance in their careers.

People who know me very quickly learn that I’m very direct - I cut right to the chase. I think it saves everyone a lot of time and is actually quite honorable. I’m that way with my students - I try to understand them, to figure out their motivation, and then I provide them very frank advice about how to get from where they are to where they want to be.

When I mentor students, I try to get a sense for where they actually want to go in the world. What is it inside them really drives them to be an entrepreneur. I think there are areas of entrepreneurship that can be taught. I do believe that entrepreneurship education is important and I think that most people should learn something about entrepreneurial skills, but learning those skills doesn’t make an entrepreneur. I think it needs to come from inside you and that you really have to have a spark that drives you to solve a particular problem.

One of the things that I try to get students to understand is that there is a difference between being an entrepreneur and being entrepreneurial. It’s slightly different, but you don’t need to start your own company to be entrepreneurial. Every single day you can use the techniques of entrepreneurship to drive innovation and move businesses forward. I think the concept of the *intrapreneur* in businesses is fantastic. I make a distinction
between being the founder of a company, what is typically seen as the hallmark of an entrepreneur and which involves a whole set of risks that are not for everybody and being entrepreneurial. It takes a great deal of energy to be a full-fledged entrepreneur. That energy can sometimes be regenerated, but at other times can lead to being burned out. I try to encourage students that I sense are ready for this kind of life, but if it doesn’t look to me like the person is ready, I caution them to be very careful. As I said, I’m very direct.

When I work with students, they have great deal of enthusiasm and one of the things that I can do is to try to coach them to channel that eagerness. It’s a hard balance to strike. You never want to put out someone’s fire. I want to stoke that. I want to bring it out. Without focus, though, people are just randomly taking action and running around like a bull in a china shop. It’s wonderful to have energy – but you have to channel that.

I also really want students to understand that entrepreneurship is not really all that the media makes it out to be - that phenomenal success is only a very, very, very small minority of possible outcomes. Individuals can have a good business without making a billion dollars. The other thing that they need to know is that everything goes through cycles. I was there for the dot-com boom and the bust that happened after. Some of my students may have only lived through a certain slice of the business cycle and I try to gauge their tolerance for risk and give personalized advice. I think one-on-one mentoring is where I can get a little further on the empathy curve and where I can give best advice to students.

As I get to know the students better, I develop a little more empathy, which is something that doesn’t come naturally to me. I work very, very hard at being empathetic
and once I get to know the individual more as a person I tend to be able to give them a more nuanced perspective. You also begin to see a little bit more about their personal side – what’s going on at home. Your work home and your home home interact with each other. You can mute one or the other, but, at the end of the day, both are part of your identity. As I get to know someone I try to bring my mentoring together with both sides of that life.

There have been a number of things that I’ve learned over the years that I think are useful for students to know and that help them get to where they want to be. The first of these is that raising venture capital may not be the best thing to do for their company. There are plenty of entrepreneurs who are phenomenally successful with cash flow type businesses that they never intend to grow beyond certain scale. One thing that is occurring in the world of entrepreneurship is this notion that you have to have a billion-dollar company to be successful or that you will be a complete bust - a notion that I think is nonsense. You have to know what makes sense for your own enterprise and this is something that I try to communicate to students.

Another lesson is the need to make sure that you choose your cofounders wisely. You’re going to be working with the same group of people and investing a great deal of time and emotion so you have to make sure that they’re the kind of people you want to be around. “Every single person that you add to the team should be raising the average,” is what I like to say. I have a number of things that help guide me in selecting these people but I also act quickly if I make a mistake - “hire fast, fire fast.”

When building the team I try to look for a number of specific archetypes: The Beast, The Architect, The MacGyver, and The Most Interesting Person in the World. I want
someone on the team who can refine and focus like The Beast and get a great deal done; I look for someone that can create a world of incredible detail like The Architect; I like someone who can make use of what’s at hand to get out of any situation like MacGyver; and I look for someone that you want to spend hours in every day hanging out with like The Most Interesting Person in the World. I also tend to rely on my first impression when hiring someone. When I meet someone, if there’s anything that alerts me that there might be something that’s not quite right, I move on. I believe that we really do develop an innate sense for these sorts of gut feelings and it’s important to listen them.

The other thing I do for students is to help them understand that it’s easier to learn from failure. I am a big believer in the notion that the best way to learn is to experience it in your own way and often you’re experiencing a failure. Sometimes it’s more difficult to learn and grow when you’re succeeding than when you’re failing. One thing that I believe that I can do for students is to take the emotion of me telling the story of one of my failures so that they experience that emotion without having to make the same mistakes themselves. It’s not the same as working through the failure themselves, but hopefully they can find something that they can learn.

One thing that I have come to appreciate lately is that there’s a change in the types of people who are drawn to entrepreneurship. In the past, folks were driven by a need to solve a particular problem or they fundamentally believed that the only way to make money was if they owned the business. Entrepreneurs that I’ve seen as most successful are ones who are passionate about solving a problem because they themselves experienced the pain. They care deeply about the customer and are customer oriented, but also know that they have to pay the bills. This is one thing that impacts people who are
doing social good just to do good or are doing things just to make money. If they don’t really feel the pain then they don’t really understand the customer, and they’re not going to be successful. There are nonprofits like that which are wildly unsuccessful. The same happens when people are doing something just to make money. If they aren’t empathetic about the customer; if they don’t care about the customer every single day and the pain they go through, they won’t be successful either.

But lately, I’ve encountered a third type of person - someone who wants to claim that title entrepreneur just to be an entrepreneur – to look cool, and go to all the cool events, and just socialize. It is great to network, and you really have to do that to be successful, but everything should be in moderation.

It’s really funny to me when you consider the different types of entrepreneurs. The people who are in it just for the money tend to find a paying job once they fail at their entrepreneurial effort. Those people tend to say, ‘I’ve got to go back to work to make some money.’ People who are in it for social good, if their business fails, then they go to work for a nonprofit somewhere because there’s plenty of them. It’s the ones who are chasing the fame of entrepreneurship that I tend to see it go at it again, and again, and again. They don’t care about the money. They don’t care about the customer. They just care about being known. These are the folks who are serial failures and who I think are not in it for right reasons. I don’t want to diminish ability to get knocked down and then get back up, but my experience is that folks who are truly good entrepreneurs, and not just entrepreneurial, find success pretty quickly and I want that for my students. (Cole, personal communication, April 2, 2015)
The Product Developer.

If I try and fail

At least I start up again -

Success thus defined.

I sat in the anteroom of an office suite in the business school at a large research University in the Northeast having arrived somewhat early. Students came and went and a harried looking individual brushed by, opened an office, and dashed back out again. I wondered if this was my participant and sat waiting patiently until he returned to find out that he was, indeed, the interviewee. He seemed almost frenetic and I asked him if this would be a good time for the interview and he indicated that all was well as we stepped into his office.

The office itself was relatively spartan and had the industrial furniture look that is typical of many Higher Education institutions. Rough, functional metal furniture dominated throughout and the office decoration was limited to what I found out later were prototypes of products that this individual had created and sold throughout his career as an entrepreneur.

Of the three participants, he is the only one who had gone on to doctoral study and his study focus was in the realm of business and entrepreneurship.

Garrett’s tale.

I really didn’t start as an entrepreneur until I got to business school. When I was there, I had to work on a business plan and I just started kicking ideas around and meeting people nearby. I got introduced to a serial entrepreneur in that area and we started working together. One thing that I learned in working with that early mentor is that if things can go wrong they will and because of that you almost need to celebrate every day when things do go well so that you build up a reserve for when they don’t. For most people, the
reality of being an entrepreneur is a far different experience than thinking about being an entrepreneur. Cash flow is sort of an abstract thing when you’re looking at a spreadsheet, but when you have to meet payroll it becomes very, very real.

From that experience I found out that most people aren’t actually cut out to be entrepreneurs. They don’t have the tenacity to be entrepreneurial in the long term. They don’t understand the difficulty — going without pay, putting up with enormous financial and personal risk, having to pay back that risk. They don’t really understand that most businesses fail. Even in my own case, I couldn’t do it for the long haul because of the stress, the money issues, and that sort of thing. So being an entrepreneur, in my mind, is a very different thing than what most people consider it to be — it’s a very difficult thing.

When people tell me they want to be an entrepreneur, I try to help them understand the tenacity that is required — honey badger-like tenacity. You have to get up and keep going no matter what happens. If you fail, you get up. If you succeed, you keep moving forward. It is constant motion.

I also found, in working with that early influencer that ‘sometimes you have to do what you need to do to get the business started.’ That is, maybe you start some other venture that will lead to the business that you ultimately want to be in. You also need to have a strong network of service providers, partners, and alliances — all those things that you need to get access to information, resources, and support. When you find these people you really need to hold on to them for dear life because they will support you and help you succeed and build a business. There’s a lot of talk right now about businesses being successful that really aren’t a business. It’s an idea that people are dumping money into, but it doesn’t generate any revenue. They don’t have to manage cash flow; they
don’t have to meet with customers; they don’t have to manage money and all of that stuff — the stuff of business — that takes a lot of perseverance and outside support.

The other theme that you hear is that entrepreneurial enterprises are only these gigantic entities that are making a billion dollars. We focus on the Bill Gates’ and the Steve Jobs’ and the Mark Zuckerberg’s, but those are the exceptions. One key thing that I want students to know is that even a little bit of success can be a big achievement. Most businesses — successful businesses — are run by individuals, small teams of individuals, and collections of people. That’s where the real lessons of entrepreneurship can be learned. I mean, there are lots of people who like to play basketball, for instance, but it’s very rare for someone to be a Michael Jordan. I think those people can inspire you, but it doesn’t mean that you have to be those people. You might achieve that level in the long run, but helping students understand that it’s okay if you don’t, is a part of what I try to do. You can have a fruitful and productive career as an entrepreneur with a hundred thousand dollar business, and that would be very successful. I think that’s being increasingly lost on people. Teaching entrepreneurship is very hot right now but we sometimes make a mistake and focus on the “hit it out of the park folks.” We have the “rock star idolatry mentality” and I think that gets in the way.

When I mentor students who want to be entrepreneurs, I try to develop a personal rapport and try to understand where they’re coming from. I want to understand their idea, but also what they want to get out of the idea that they’re working on. The important part, as a mentor, is not to be judgmental, or talk down to people that have less business knowledge than I have, but to have an open and honest conversation on a person-to-person basis. I think that sort of approach is a lot better than me saying, “this is what
needs to be done, you go do it — listen to me.” I think one thing that is challenging
though, and may be a generation-to-generation thing, is to get my mentees to listen to and
value the experience that I do have. Digital natives seem to believe that because they
have an incredible access to information, that they know more than they really do.
There’s a lot of tacit knowledge that you gain in doing the work that you can’t pick up by
reading about doing the work.

I talk to students about my story to share that lived experience, I tell them about how I
developed a series of products, including one company that sold hundreds of thousands
of units, raised a bunch of equity investment…and went bankrupt. It was a great
experience actually and I wouldn’t change a thing about it. Going through the highs of
success and then the low, low, low of failure — you can’t put a price on that. The next
company that I did was a service business — a design engineering business. We grew
that company and I was very happy with developing products for other people. I talk
through some of the typical business cycle/product cycle things that you need to do to
bring things to market. There are lots of things that impact a successful product
development effort — project management, personnel, quality, design issues. All of those
are things that they have to pay attention to on a regular basis.

I try to talk to them and have a conversation with them rather than displaying a bunch
of slide deck material – I draw on the board and ask them questions, those sorts of things,
just to keep people engaged. I find this works a lot better than just lecturing at them. I
actually use a lot of project teamwork and, while I use case studies to set the groundwork,
the course is set up as an experiential product development project. They actually have a
budget. They have to make something and I think it’s a great program for them. We
bring in designers, and they have to do prototyping, and they’ve got to figure out how to do that stuff. They have actual deliverables that they have to meet, and that’s one of the things that they really don’t have a good handle on.

The most difficult thing that I find in mentoring students, however, is that it’s hard for me to get them to see beyond the short-term. They might have a project deadline or a thesis deadline and they may be focused on graduation or something that’s immediately assigned — you know a box to check off — but some of the things they are working on now can have an influence on them far in the future. Many of them have great ideas that, if they decided to carry them forward, might be successful products or businesses. It’s frustrating to me that students seem to let that drop once they know that they’re going to pass the course, or graduate, or get a job. They don’t actually see that if they work on something, and turned it into something real, it could be a great business. It’s really interesting that even if we give students money, and education, and mentoring, and dedicated programs, it doesn’t really seem to influence whether they become entrepreneurs or not if they don’t have that innate interest and drive. I wish we could find out a way to help them focus on the long-term and not just the thing that represents the nearest gratification.

I think, because of the challenges that go into actually being an entrepreneur, that maybe one out of ten students will have all have the combination of traits that can help them be successful as an entrepreneur. I have some students who’ve gone on to raise millions of dollars in capital and are the ones who got it. However, I think that it’s good for everyone to have some understanding of the general concepts of entrepreneurship. I think this is an idea that should be studied much more – I mean, “what can we do to help
people realize and overcome the challenges of entrepreneurship?” That’s not to say that everyone has to be an entrepreneur, but knowledge of the ideas of entrepreneurship are helpful even in a corporate environment. Even if I only reach that one out of ten who will go on to be an entrepreneur, I think that that is all worth it. I think the exposure will make them better managers if they choose to do more traditional career path. (Garrett, personal communication, April 9, 2015)

Directed Content Analysis

After soliciting the participants for additional comments or revisions as a part of the member checking process, several subsequent close readings of the texts and review of field notes, the transcripts were reviewed against an a priori coding scheme, with codes derived from the theoretical frame, as a first stage analysis. These results are presented below in order of the general dimensions outlined in the Cognitive Apprenticeship model.

Content.

As might be expected, all of the participants believe that domain knowledge, a feature of the content domain (Collins, 2006), is an important feature of the material that is offered in the mentoring support that they provide to their students. This belief is typified by the observations of Ron in regard to mentoring of students of entrepreneurship: “Well, there’s the formal stuff. They’ve got to learn what marketing really means [and understand] the basics of accounting [and] the difference [between] cash flow versus profit” (personal communication, April 2, 2015). The body of knowledge of the set of facts, conceptual knowledge, and processes necessary for development as a full-fledged member of a community of experts may be considered to be a starting point in the development of expertise. It is, therefore, reasonable that all participants would consider the transfer of such information an important characteristic of their relationship
with their mentees. The participants also broadly support the use of their own life experiences as a basis for explicating the heuristic strategies associated with the practice of entrepreneurship.

Heuristic strategies, another component of content knowledge, refers to the set of practices that a domain expert might use to accomplish a given task (Collins, 2006). The participants make extensive use of their own experience-stories as a means for transferring the tacit knowledge of these practices gained through their history as entrepreneurs. Both Ron and Garrett were explicit in this regard. For instance, both speak in terms of the use of case studies borne of their own experience to offer insight into the entrepreneurial process for such activities as the initial development and prototyping of product, the launch and commercialization of products (Garrett, personal communication, April 9, 2015), and the management of cash flow (Ron, personal communication, April 2, 2015).

Ron offered evidence that he is cognizant that students need guidance with regard to control strategies, or those general approaches used by experts to engage in solution building (Collins, 2006). For example, “I was able to say, ‘Well - remember Crossing the Chasm?’ or I can start him with, ‘Who are your angel investors and what’s your relationship with them?’” were offered as examples of engaging with a mentee to brainstorm ideas about how to surmount a given entrepreneurial challenge (Ron, personal communication, April 2, 2015).

Within the content domain, there was no evidence that the participants provided their mentees with guidance within the realm of learning strategies, or “knowledge about how to learn new facts, concepts, and procedures” (Collins, 2006, p. 50) that might be necessary for an individual to maintain expertise within a discipline. This lack of evidence may be due to the relative level of importance placed in the area when compared to other aspects of the content domain or to the education level of the students (primarily undergraduates).
Method.

Turning to the Method domain, the subset of “techniques used to promote expertise development” (Collins, 2006, p. 50), there is some evidence of focus on such techniques by Garrett and Cole through the subdomain of Exploration, while Ron seems to make widespread use of the concepts contained in this section of the frame. None appear to use Modeling, where mentees observe a mentor at work on a given task in the course of their mentoring activities (Collins, 2006, p. 50). Garrett does indicate that he uses Articulation in that he encourages students to verbalize their knowledge and understanding relative to a given topic in the classroom: “I stand up and I’ll draw on the board and you know, just ask questions, and those sorts of things, uh, just to get people more engaged” (Garrett, personal communication, April 9, 2015).

Ron makes extensive use of the Method sub dimensions in the course of the support that he provides to mentees except for the Modeling sub dimension. For example, Ron provides evidence of the use of Scaffolding, providing support for students as they perform a task, though he admits that it is sometimes difficult to avoid simply doing the task himself - “[While one mentoring challenge is] how to be critical without criticizing, the other is not doing [a task] myself…[but] rather to give enough comments to get them on the right track but not do [the task] myself” (Ron, personal communication, April 2, 2015). Ron also uses Articulation, particularly when coaching students that are more advanced. Whereas Ron might use a Scaffolding technique with neophyte entrepreneurs, an interaction with a former student might take a different approach that is Articulation focused - “That’s a different approach than if it’s a former student of mine, who I know has seen certain things. In that case, I can refer them back [to content that they encountered previously]. I can meet with them...[and] start at a higher level” (Ron, personal
communication, April 2, 2015). By asking students to remember and express that prior knowledge profile verbally, Ron creates an environment that facilitates growth in the student.

Ron also explicitly recognizes that the continued growth and development of the student and entrepreneur means that the student will eventually move beyond what he is able to provide as a mentor - “if someone is moving along, they outgrow me, what I can do for them, hopefully. They listen to what I have to say; they do it. After a while they know more than I do” (Ron, personal communication, April 2, 2015). Throughout the interview, Ron outlined an approach to mentoring in the service of student development of techniques, knowledge, and tools that are a phased approach based on student level.

**Sequencing.**

Indication of the Sequencing domain was only exhibited through the subdomain of Increasing complexity and comments made by Ron, “I really just had to start almost at step one…I had to give them an MBA course in the evening” (Ron, personal communication, April 2, 2015) in speaking about a team of students that he was mentoring within the context of an innovation contest.

**Sociology.**

The innovation contest also showed that Ron engages in mentoring within the Sociology subdomain of Cooperation in which “students work together to accomplish their goals” (Collins, 2006, p. 50). Garrett also uses cooperation activities through the use of project-based assignments that are team-based. All three participants discussed aspects of their mentoring practices that showed indication of an appreciation for the Sociology domain. This domain is concerned with the concept of a learning environment as a socially constructed entity (Collins, 2006) and is expressed through the subdomains of Situated Learning, in which students engage
in realistic work to develop expertise (Collins, 2006), development of a Community of Practice in which students communicate about different ways to accomplish goals (Collins, 2006), and through the development of Intrinsic motivation as students begin to set personal goals in pursuit of knowledge acquisition and skill development (Collins, 2006). These, in addition to the sociological subdomain of Cooperation are particularly evident in the comments of Garrett and Cole.

Situated learning is a component of the educational model employed by all three participants in that they provide mentoring through experiential learning. For instance, “the course is centered around an experiential development project” (Garrett, personal communication, April 9, 2015), “I’d say that in that entrepreneurship course, it should be experiential” (Cole, personal communication, April 2, 2015), and “They’re having to come up with a proposal for a product, and talk about who the beneficiary is, and ‘how would you sell it?’, and how it would be financed” (Ron, personal communication, April 2, 2015). The primary worldview that the three participants appear to attempt to relate to students through their mentoring actions is the need to engage in experience as a primary mode of learning. They all strive to transfer the knowledge of their experience through the use of case studies and stories of their own experiences, including failures as well as successes, but they all work with students to help them to understand that much of what they need to understand in order to achieve success is borne of their own experiences rather than their readings.

Both Garrett and Cole show evidence of trying to help students create a community of practice that extends beyond their immediate network of peers and to engage in various communities of practice throughout their lifetimes. Garrett, for instance, “[brings] in designers and [the students] have to do active prototyping” (personal communication, April 9, 2015) while
Cole speaks to the need for an “advisory board for all aspects of your life” that is composed of “a set of friends that you can talk to about things you can’t talk to others about…people who give you honest and direct feedback that you might not otherwise receive” (personal communication, April 2, 2015).

**Secondary Analysis**

The interview transcription texts were used as material for an analysis seeking emerging themes that range beyond the a priori codes derived from the theoretical frame. The review of the texts in this secondary analysis provided insight into the experiences that fostered the participants’ development of identities as entrepreneurs and mentors of entrepreneurs and exposes the transition between roles.

**Identity development.**

Rigg and O'Dwyer (2012) posit that mentors foster the development of entrepreneurs through a process of identity construction constituted in the activity of learning. Such construction of identity is known to be fostered within the context of organizations as individuals begin to develop a sense of self in the context of groups (Ashforth & Mael, 1989; Stets & Burke, 2000). Identity construction is also a key component in an individual’s understanding of the environment (Weick, 1969/1979, 1995); an understanding that is developed through the integration of both sensemaking and sensegiving activities (Smerek, 2010). Gee (2014) describes an activity as “an action or sequence of actions [that carry] out a socially recognizable and institutionally or culturally normed endeavor” (p. 103) while offering that identities are built through the way individuals “[express] their sense of who they are and their multiple other identities through language” (p. 112). These definitions are apt representations of the concepts as
expressed by Ron, Cole, and Garrett as they enact environments that constitute their respective identities as entrepreneurs and mentors of student entrepreneurs.

Ron describes his early life as a set of activities that led to the development of an identity as an entrepreneur and ultimately, to a constituted identity as a mentor to students of entrepreneurship. For example, his initial identity construction is represented by passages such as, “Well, I sort of come from an entrepreneurial family” (Ron, personal communication, April 2, 2015) and “Even though I didn’t think about it at the time, that was my life, a family that had this business” (Ron, personal communication, April 2, 2015). Subsequent activities that lead to the development of a life as entrepreneur are highlighted in a series of events that fostered his conceptualization of himself as a full-fledged entrepreneur rather than as a student or researcher:

I guess actually, my first entrepreneurial adventure was when I took over the… At the [Business School] the weekly newspaper is run on a for-profit basis as you might guess. Different groups of students could make bids to take it over from the previous group. I put together a team and was editor-in-chief. We won the bid. We had to run that… I guess we had some money from the Student Association to seed to get things started. To really have 16-page newspapers, and fill up the news hole, and be able to pay our reporters, it was run like a business for a year. That was probably my first…

Then when I left [the Business School], I teamed up with some guy actually to start a newspaper in [the mid-Atlantic area where I grew up] - an arts and entertainment newspaper…

Then when I came [here], I became an angel investor for a business school friend who was starting a weekly paper….
Then the big deal was when I left my research job… I started a real… my major venture as a software business (Ron, personal communication, April 2, 2015).

Even during his return to academia as a researcher, it is evident that his conceptualization of the work environment is set in terms of entrepreneurial activity grounded in practicality:

The guy who was the head of the program… on one hand, he was very academic, very brilliant, and yet he had a terrific sense of how to work with people, and how to separate possibilities from practicality. I learned a ton from working with him for eight years, probably more than any other single person… I don’t think that one would particularly call him an entrepreneur, but within a university context he created a program, a Center that was totally self-funded. He raised money from corporations, not foundations. In many ways, he acted like many consulting companies would, although I won’t bore you with it. The product was very different than [the product of] a consulting company. Essentially, he created within the university, a self-funded, consulting think tank. He did a great job of running that (Ron, personal communication, April 2, 2015).

His life experiences, and his time as a researcher, seem to have informed Ron’s developing identity as an entrepreneur but also his identity as a mentor. He is explicit that his qualifications for working with students of entrepreneurship are based on experience as an entrepreneur and not through his career as an academic while acknowledging that he was strongly influenced by the way in which the head of the research center operated and mentored him during his early academic career.

One interesting aspect of Ron’s continuing development is that he is coming to view himself as maturing into a position where he has less need of mentors and from which he is able to serve primarily as a mentor rather than a mentee:
Through most of my life, it seemed like I was the mentee. I have all these people in my life who, they may not have realized it, but I view them as my mentors. At some point, that switched, and I suddenly found out that I was the adult in the room. It’s taken me a while to look at myself in the mirror, and say, “yeah, you’re too old to have a mentor anymore” (Ron, personal communication, April 2, 2015).

Ron also describes a world that offers a dichotomy between idealists and pragmatists. The details emerge in the opening passages of the interview conversation:

I really like the idea of teaching at a business school more than teaching at the school of communications, which I had done… The students are less idealistic [in the business school]. In the business school, they have a greater sense of practicality… As a group – there are always exceptions – as a group, they seem to have a greater sense of what’s feasible as opposed to what is ideal. The journalism students, again as a group, they want to more likely save the world, and they want to become great journalists. They have a message that they want to do. Some of them are in advertising and PR, but it’s still a different culture. The business students, they’re less academically oriented, that’s for sure, but the journalism students aren’t very academic either, compared to say History [students]. I feel more comfortable with it because they’re maybe more grounded, or want to be more grounded in what I see as the real world (Ron, personal communication, April 2, 2015).

This focus reveals an identity in which value is placed on action - executing what is possible and practical - rather than one based on the attempt to achieve an ideal state that may or may not be achievable. The dichotomy between a focus on possibilities or an idealistic worldview and that of practicality or a pragmatic worldview is also revealed in his continued
referral to these dichotomies in his discussion of the difference between students of business and students of journalism:

the [business] students are less idealistic. In the business school, they have a greater sense of practicality… As a group – there are always exceptions – as a group, they seem to have a greater sense of what’s feasible as opposed to what is ideal (Ron, personal communication, April 2, 2015),

in his description of a past partner:

He’d say, “Oh, we can do that.” What I learned is that yeah, [we could do that,] but not overnight. This was going to be three months, and it’s much more difficult than he thought it was. I had to learn that (Ron, personal communication, April 2, 2015),

and in remembering his own mentor: “On one hand, he was very academic, very brilliant, and yet he had a terrific sense of how to work with people, and how to separate possibilities from practicality” (Ron, personal communication, April 2, 2015).

Cole also describes an entrepreneurial spirit from early life and describes a childhood, adolescence, and early adulthood focused on various entrepreneurial efforts through time. His initial forays into the entrepreneurial space were through what might be considered stereotypical child-entrepreneur activities, “I was the kid at the bus stop selling whatever I could to my friends and colleagues… I was the kid with the lemonade stand. I was the kid buying and selling stuff from Sam’s [Club] and selling it retail” (Cole, personal communication, April 2, 2015). This trend continued through college and into adult life through to his current role as a mentor of entrepreneurs.
Cole is also explicit in defining identities as both mentor and mentee. While serving as a mentor to students, Cole still derives benefit through feedback from professional mentors within his current organization:

Feedback I got very early on in my career was ... My boss, reminded me of it today. I'm very passionate and articulate, and as a result, in some ways it makes me approachable. In other ways, it makes people fearful of disagreeing with me. Then I need to work doubly hard to get that disagreement to me, because I want to know. I need to know if there's disagreement. I want that feedback, so how can I provide an environment to cultivate that? If not, how can I make sure I have a channel, maybe it's indirect, that I can get it so that I can learn from it and improve whatever that may be? (Cole, personal communication, April 2, 2015).

While both Ron and Cole describe early life experiences that were instrumental in their construction of identities as entrepreneurs, Garrett, who didn't engage in entrepreneurial activities until his graduate school years, offers an alternate pathway to entrepreneurship. This late start, relative to the opportunities afforded his mentees, is one source of apparent frustration. He describes this frustration in working with his own mentees, “If it were me, and I had access to [start-up incubator resources] as an undergrad, I certainly would have pursued entrepreneurship earlier than I did” (Garrett, personal communication, April 9, 2015). The seminal event that contributed to Garrett’s development of identity as an entrepreneur appears to have occurred during his time in graduate school: “I tried to work on a business plan and then I started just kicking around, meeting different people in the Philadelphia area and uh, got introduced to a serial entrepreneur in the Philadelphia area” (Garrett, personal communication, April 9, 2015).
All three participants have constituted identities as entrepreneur and mentor of entrepreneurs through participation in activities within the entrepreneurial space and through their own mentoring interactions with students of entrepreneurship providing evidence that the process of identity construction is continually evolving in all participants. For instance, Garrett offers an understanding that a mentor-mentee relationship often advances learning in both, “Often there's a lot of times that uh, being a good mentor, you learn a lot from the people you're mentoring” (Garrett, personal communication, April 9, 2015). While Cole has personal identities that connect the worlds of mentee and mentor, Ron is transitioning away from the mentee identity as time passes. The development of identity, both as entrepreneur and as mentor to student entrepreneurs, is an ongoing process.

The participants’ observations of the changing conceptualization of entrepreneurship within society and popular culture and their appreciation for the challenges that attend to the successful development of the team social environment during an entrepreneurial adventure are shown in the explication of concepts that emerged during the interviews.

**Emerging Concepts**

The analysis of the texts offered insight to the ways in which entrepreneurs seek to build teams that can further the execution of their entrepreneurial endeavor. In addition, the review also exposed the participants’ concerns with a developing, socially constructed archetype of an entrepreneur that is different that those of the prototypical conceptualization of entrepreneur as one incurring risk in seeking financial gain or to advance a social good (Dacin, Dacin, & Matear, 2010; Thompson, 2002; Zahra, Gedajlovic, Neubaum, & Shulman, 2009). These concepts are explored below.
Team member archetypes.

Cole offered insight into content that he shares with mentees that is focused on building a team to successfully undertake an entrepreneurial endeavor. Using personnel archetype metaphors taken from the Marvel comic book characters The Beast and Cyclops (Lavin, 2013); The Architect from The Matrix Trilogy ("The matrix," 1999; "The matrix revisited," 2001; "The matrix revolutions," 2004), a composite character based on MacGyver (cf. Kunst, 2002), Indiana Jones (e.g. "Raiders of the lost ark," 2008), and Lara Croft (cf. C. Taylor & Short, 2001); and The Most Interesting Man in the World from the Dos Equis commercials ("Top ad campaigns of the 21st century; 11 Dos Equis the most interesting man in the world," 2015), Cole outlines a structure for an entrepreneurial team that includes members who can use their intellect, focus on the work, and ability to exert exceptional effort to achieve results when necessary; who can envision, describe, and create an incredibly detailed vision of the entrepreneurial endeavor; who can escape a challenging circumstance with limited resources; and who embodies an individual who would be an interesting companion when working on the endeavor over extended periods of time (Cole, personal communication, April 2, 2015). He also makes note of his personal policy in bringing people onto the team. As he states:

I also, in hiring, have a no flag policy; so if I see even a small flag that alerts me to something not being right, I move on; because…you should listen to your gut. That doesn't mean make all the decisions from your gut. That's not at all what I would advocate for, but in hiring and in people your gut is usually right. We humans have evolved, developed, to be able to look somebody in the eye and develop a sense of who that person is. Are they going to harm me? Are they going to help me? Are they an ally or
an enemy? I think you get pretty good at that and you should listen to yourself (Cole, personnel communication, April 2, 2015)

This observation aligns with the experience of Ron as evidenced by an anecdote that he shares with mentees regarding the need to be careful when bringing potentially disruptive members into the team (Ron, personal communication, April 2, 2015). In addition, this instinct to trust emotional responses when determining if an individual should be added to a team has been shown to be valid in recent studies (Rivera, 2015). Cole also reiterates the need to make wise choices when forming the team:

Choosing your co-founders absolutely integral. Start-up requires a great bit of emotional investment, as much as you can try to keep things to the data, to the analytical nature. When you're working 12-15 hours a day, day-in-and-day-out for many years, it can be a grind, so the people you're around is really your family, so making sure you're building the kind of family that you want to come home to every day, because your home is your work, right? Your other home is your family, so making sure that you're picking people that have shared interests, shared values, going back to the same thing that you would look for in investors, look for the same qualities in your co-founders. Do they have the same kind of outcome in mind? The same kind of duration in mind? The same kind of business they want to build? Taking that, extending that notion of making sure you have the right co-founders. Every single person that you add to the team, you should be raising the average is, what I like to say, raising the average of the team. Every single person is just so important (Cole, personal communication, April 2, 2015).
Garrett extends the concept to a higher level of analysis in noting, “...you know, a good, a good network of uh, service providers and partnerships and alliances are invaluable” (Garrett, personal communication, April 9, 2015).

Taken together, these statements highlight the degree to which the participants value the contributions of their team and their external partners. It should also be noted that Ron, Cole, and Garrett all believe that human capital may represent the most critical resource relative to the ultimate success of an entrepreneurial endeavor.

**Societal influences.**

In exploring the current state of entrepreneurship and the influence of the larger society, Cole and Garrett describe an environment in which popular media skews the conception of an entrepreneur. Rather that representing an entrepreneur as the prototypical small-business person undertaking some risk in the pursuit of modest revenue and profit goals, their is an extant narrative in which an entrepreneurial endeavor is deemed a failure if it does not realize huge success. The statements:

Not every business needs venture capital, and I think one of the things that popular media in today’s age does is [that it] tries to convince everyone that they need to… The kind of company that they need to start is the kind that has a binary outcome. What is being called a unicorn today, [either you are a] billion-dollar [company], or a complete bust and I think that isn’t necessarily the right thing for every entrepreneur (Cole, personal communication, April 2, 2015),

and “you still can have a fruitful and productive career as an entrepreneur with $100,000 a year business and that's great, and that's very successful” (Garrett, personal communication, April 9, 2015), provide evidence of their view to this world. Both participants also allude to a
developing conceptualization of entrepreneur as leader of a large venture-capitalized, innovation effort, and of entrepreneur as celebrity. For instance, Garrett offers the observation that “we have turned the entrepreneurs into rock stars” (personnel communication, April 9, 2015) and Cole opines “there’s a great celebrity around entrepreneurs right now, more than any time may be in the past. As a result, there’s a great deal of sex appeal to be an entrepreneur” (personal communication, April 2, 2015).

Cole and Garrett both believe that such thinking is skewing the way that entrepreneurial education is focused in certain arenas as evidenced by such statements as, “many people will make a mistake of focusing on teaching, you know, the rock star methodology” (Garrett, personal communication, April 9, 2015). This change in conceptualization may be leading to a distortion of the reality of entrepreneurial education in their view: “There’s been, [in] the last five to ten years, just a lot of, I think, false hope that we’re going to turn every student into a highly successful entrepreneur” (Garrett, personal communication, April 9, 2015) and expectations on the part of students engaging in a program of entrepreneurial education - “I want them to understand…that it’s not all that the media makes it out to be. It’s not only the phenomenal successes; in fact, that’s a very, very, very small minority of outcomes” (Cole, personal communication, April 2, 2015). In the view of Cole, the conceptualization of the entrepreneur as defined in popular media leads to a false dichotomy: either the entrepreneur is the creator/leader of “what is being called a unicorn today - billion dollar companies” or the entrepreneur is a failure (personal communication, April 2, 2015). Such a dichotomy ignores the reality that “some entrepreneurs can be phenomenally successful with cash flow business or with small businesses that they never intend to grow beyond a certain scale” (Cole, personal communication, April 2, 2015). Thus, teaching entrepreneurship and mentoring nascent
entrepreneurs based on the model of the celebrity entrepreneur runs the risk of causing students to exclude potential success paths within the entrepreneurial space that might be rewarding both financially and personally.

**Fame entrepreneurship.**

Another major theme advanced by Cole and Garrett was that of an entrepreneur archetype that is fundamentally different from typical conceptions of the entrepreneur as one who undertakes risk in order to realize financial gain or who engages in activities to achieve social good. This theme ties into the popular media construction of entrepreneur.

Cole offers the most explicit formulation of this archetype. This archetype, what might be called *fame entrepreneurship*, involves identity creation as an entrepreneur without any clear focus on returns that are of benefit to society or which accrue financial reward to the entrepreneur or investors. Indeed, the chief return seems to be achieved through attention-seeking behaviors that lead to social network acknowledgement that an individual is considered to be an entrepreneur (Cole, personal communication, April 2, 2015). Such behaviors are reified in popular media portrayals of individuals as entrepreneurs even though they do not represent nor operate an active, revenue-generating business. Garrett notes this phenomenon by offering, as an example, Instagram (personal communication, April 9, 2015) which, at the time of sale to Facebook for $1 billion, had no revenue (Wortham, 2012). Cole characterizes this group as:

people who are just looking to do something to say, “I’m an entrepreneur, look at me! I left this great job, or didn’t pursue this Wall Street job to do this thing and be cool and go to all these events and socialize” (personal communication, April 2, 2015).

He further observes that this group of individuals seems to engage in multiple, failing efforts:
It’s the ones who were chasing that fame that I see tend to go at it again, and again, and again, and again, because they don’t care about the money. They don’t care about the customer. They just care about them against what ever it is that they are going against, if they’re trying to develop being known for being against the whatever they’re against, or for whatever they’re for (Cole, personal communication, April 2, 2015).

Garrett characterizes these entrepreneurs as wanting to enjoy the fame enjoyed by pop musicians and professional athletes while not understanding the work involved or the native talent that is necessary to succeed at that level (personal communication, April 9, 2015).

**Summary**

The participants’ stories provide insight into the journey that they take as they make the transition from a role as a successful entrepreneur to a role as a mentor of future entrepreneurs. Their words also expose the nature of the experiences that they share with their mentees and reveal a number of interesting emerging concepts. These findings are summarized below.

**Transition to mentor.**

The participants have all evolved into the role of entrepreneur-mentor as a natural extension of their past history as entrepreneurs. That is, the ongoing creation of an identity as a mentor is an outgrowth of their past experiences as entrepreneurs rather than an expression of identity developed as a consequence their academic training. An exemplar of this identity evolution is seen in Ron’s description of his move to higher education:

> After I sold my business, and in that serendipitous way that things often work, I found that [another] local university was looking for someone to teach in their entrepreneurship program. At the time my main academic interest was in media and communications — that’s the focus of my research and my books, the media industry and the economics of
the industry. They wanted me to teach in the program not for my academic background but for my hands-on experience as an entrepreneur (personal communication, April 2, 2015).

Cole and Ron both believe that they made the transition to the world of entrepreneurship education and student mentoring by dint of their experience as entrepreneurs rather than as a consequence of their academic training. Garrett, while having formal training in the general field of entrepreneurship, also makes extensive use of his entrepreneurial experience as a foundation for providing mentoring support for his students and views his mentoring practice through the lens of entrepreneurial experience.

In developing their own identity as mentors, it is clear that all three participants benefitted, in some way, from their own past relationships with entrepreneur-mentors. For example, past mentors who exhibited an entrepreneurial bent in various fields shaped Ron’s identity as a mentor. These past mentors include relatives, business partners, and educators. Garrett also benefitted from an association with an entrepreneur-mentor early in his entrepreneurial efforts. As he explains, “I started just kicking around, meeting different people…[and I] got introduced to a serial entrepreneur…and we started to work together” (Garrett, personal communication, April 9, 2015). While these early contacts with key mentors shaped their development as entrepreneurs, they also influenced their development as mentors.

The participants’ transition to mentor is also marked by an understanding that they are in different stages of development relative to their mentees. These differences are expressed in terms of knowledge and personal social development as entrepreneurs. They are also expressed in terms of their life experience. As such, each of the three is careful to develop a connection with and a personal understanding of their mentees and where the mentee is situated within the
developmental continuum. This connection building is evidenced through the ways in which each of the three interacts with students from the start of the mentor-mentee relationship. For instance, Cole works to understand the students that he works with in order to connect with them as a first step to offering them advice. His statements, “I try to understand what they’re trying to accomplish. What is it inside them that makes them think they’re an entrepreneur?” (Cole, personal communication, April 2, 2015) and “I try to understand and figure out what is their motivation. Where are they? Where do they want to be?” (Cole, personal communication, April 2, 2015), show engagement in activities that serve in a diagnostic capacity as a part of his mentoring efforts. Garrett takes a similar tack as evidenced by his description of his initial mentoring actions:

When I mentor students who want to be entrepreneurs, I try to develop a personal rapport and try to understand where they’re coming from. I want to understand their idea, but also what they want to get out of the idea that they’re working on (personal communication, April 9, 2015).

Cole also views mentoring as something that is not focused solely on a single dimension or competency:

I think you need mentoring throughout your life and for all aspects of your life. That’s something I’ve really made a part of me. There are always new skills to develop and it’s helpful to have a set of friends that you can talk to about things you can’t talk to others about - people that you expect will give you honest and direct feedback (personal communication, April 2, 2015).

Garrett makes note of the ways in which mentoring is a co-created experience with the mentee learning for the mentor and vice versa, “Often there's a lot of times that uh, being a good
mentor, you learn a lot from the people you're mentoring” (Garrett, personal communication, April 9, 2015).

While all three participants have worked with personal mentors throughout their careers, Ron provides evidence that he views himself as being at a different stage in his personal development along the mentee-mentor continuum. That is, at this point he feels that he has transcended the need for additional mentoring himself and focuses his efforts on mentoring new entrepreneurs. This transition is marked by his observation that, “At some point though, something switched and I suddenly found out that I was the adult in the room. It took me a while to look in the mirror and say, ‘yeah, you’re too old to have mentor anymore’” (Ron, personal communication, April 2, 2015).

It is clear that the participants’ transition from entrepreneur to mentor-of-entrepreneurs is a continual process that extends from, and builds on, their prior role as entrepreneurs and incorporates that experience as well as knowledge imparted by their own mentors. Their experience as entrepreneurs allows them access to experience-borne tacit knowledge that they share with students as a part of their own mentoring activities.

**Sharing experience.**

Ron, Cole, and Garrett all make extensive use of their experiences as entrepreneurs as they provide mentoring to students. This sharing of experience comes in many forms and provides the students with access to the tacit knowledge that the three gained through their various entrepreneurial experiences. It is also noteworthy that the participants share experiences of success and failure. This sharing, of good and bad, is meant to offer mentees a realistic view of the entrepreneurship landscape as a means to foster development and for supporting future resilience in their mentees. That is, they want students to understand that engagement in an
entrepreneurial endeavor is not without risk (Cole, personnel communication, April 2, 2015; Ron, personnel communication, April 2, 2015), hard work (Garrett, personal communication, April 9, 2015), and that failure can sometimes result in greater learning than success (Garrett, personnel communication, April 9, 2015). Key ideas shared with their mentees include the need for careful consideration of the team of collaborators that they bring to their endeavor (Cole, personnel communication, April 2, 2015; Ron, personnel communication, April 2, 2015) and the partners with which they engage (Garrett, personnel communication, April 9, 2015). Basic business planning concepts such as cash flow management, and general conceptions about the shape of entrepreneurial success also figure into the ideas, knowledge, and experience that the participants share with students that they mentor. This material takes shape as an explication of tacit knowledge gained through experience in entrepreneurial endeavors, through explanation of static content materials, through the exploration of each mentor’s observations of the entrepreneurial landscape, and their analysis of popular culture constructs.

Some would argue that the basic knowledge necessary for success as an entrepreneur could easily be gained through various print and online sources. The participants, however, share their experiences as a way to solidify content knowledge that is necessary, in their view, for entrepreneurial success. They also share experience as a means to help their mentees avoid common mistakes and to better understand the entrepreneurial landscape. As noted, the tacit knowledge embodied by these experiences includes the need to be mindful when choosing business partners (Ron, personal communication, April 2, 2015; Cole, personal communication, April 2, 2015; Garrett, personal communication, April 9, 2015), the importance of considering and managing cash flow (Ron, personal communication, April 2, 2015; Garrett, personal communication, April 9, 2015), the lessons to be learned from failure (Ron, personal
communication, April 2, 2015; Cole, personal communication, April 2, 2015; Garrett, personal communication, April 9, 2015), and the danger of too much success (Garrett, personal communication, April 9, 2015). The sharing of such information is perhaps the greatest benefit of mentoring for the students.

Beyond the sharing of tacit knowledge, the participants understand that mentoring can help introduce students of entrepreneurship to the social norms of the entrepreneurial community. Ron, for example, recognizes the need to introduce students to these norms and to business in general through instruction that brings them, step-by-step, into the community of entrepreneurs. The mentoring that he is providing to a student team at his undergraduate alma mater begins with “[starting] almost at step one about ‘who’s the target market?’ I had to explain what a target market is. I had to give them an MBA course; an MBA program in the evening.” (Ron, personal communication, April 2, 2015). This facet of mentoring can be viewed as a means to foster identity development in the mentees leading them to full membership into the community of entrepreneurs.

**Cognitive apprenticeship.**

Cognitive apprenticeship theory served as a framework to guide this inquiry into mentor development and, primarily, as a lens through which to consider the ways in which experienced entrepreneurs share their experience with their mentees. Ron, Cole, and Garrett all make use of various aspects of the cognitive apprenticeship model but they do not make use of all of the subdomains outlined by Collins (2006). The absence of reference to the subdomains is most striking within the Sequencing domain, where Ron alone provides evidence of use of the Increasing complexity subdomain as he mentors students engaged in an entrepreneurship contest at his undergraduate alma mater. Other missing subdomains vary by participant. For instance, while
Ron makes widespread use of the Method sub domains including Coaching, Scaffolding, Articulation, and Exploration, neither Garrett nor Cole offer explicit evidence that they make use of aspects of this domain beyond Coaching and Exploration.

The participants all provide evidence that they make use of the Content and Sociology domains while mentoring students. The Content subdomains of Domain knowledge, Heuristic strategies, and Control strategies are particularly evident, with the primary focus on Domain knowledge and Heuristic strategies, as might be expected in an academic setting. Such focus might be assumed to be a given in most, if not all, fields of endeavor, but Cole, Ron, and Garret provide this knowledge through sharing and discussion of their own experience as entrepreneurs rather than as course readings or prototypical lecture activities. Heuristic or task accomplishment strategies and Control or solution creation strategies might be expected as sources of focus for nurturing entrepreneurial skill development in students of entrepreneurship as these relate on the basic activities within the domain. It is unclear, however, that the participants provide explicit instruction within the Learning strategies sub domain.

Within the Method domain, the greatest evidence for sub domain use involves the Coaching and Exploration sub domains. This might be expected in an experiential learning – based program that includes a mentoring component. Working directly with students as they conceive an idea for an entrepreneurial effort and work to execute a plan to bring that effort to fruition is fertile ground for the use of such sub domains. What is less clear is the extent to which the participants advance the Modeling, Scaffolding, Articulation, and Reflection sub domains. While Ron does provide some evidence of Scaffolding and Articulation in addition to Coaching and Exploration, there appear to be opportunities for incorporating Modeling and Reflection to a greater degree within his practice.
Evidence of the application of concepts within the Sequencing dimension is also scant, with only Ron showing the use of the Increasing complexity in his mentoring practice.

Within the Sociology domain, it is clear that all participants make use of Situated learning strategies through team-based and project-based learning. They also provide evidence that they help students tap into the Community of practice and Cooperation sub domains to varying degrees, but there is little evidence that they have experienced success in helping students develop within the Intrinsic motivation subdomain. This is most strongly evidenced by Garrett’s frustration that some students do not seem to persist with the continued development of a particular entrepreneurial endeavor once they have received the extrinsic motivation attendant to a course grade or graduation (Garrett, personal communication, April 9, 2015).

**Emerging concepts.**

The participants offered a number of interesting observations that extend beyond the concepts contained in their transition from entrepreneur to mentor-of-entrepreneurs, the material shared with their mentees, and the application of various aspects of the Cognitive Apprenticeship frame. These include a conceptualization of ideal team members framed using various fictional characters as metaphor, the influence of media on the social construction of the entrepreneur, and the identification of an emerging entrepreneur archetype.

The idea of particular personality attributes and team member archetypes are most explicitly defined through Cole’s descriptions of idealized team members based on fictional characters. However, both Ron and Garrett are clear that they also view the selection of collaborators and partners to be a key to success as an entrepreneur. As noted above, this information is something that they freely share with students as a part of mentoring. Cole’s team member archetypes are, however, a particularly vivid representation of the attributes that a new
entrepreneur might look to in building a team. Such use of fictional characters has proven to be a useful construct in exploring power relationships (Kruse & Prettyman, 2008) and non-extant characters have been recognized as an emerging leadership construct, the virtual leader (Boje, Pullen, Rhodes, & Rosile, 2011).

One observation that both Garrett and Cole share is their fear that popular-media portrayals of entrepreneurs is leading to a socially-constructed notion of entrepreneurial success that is at odds with their experience as seasoned entrepreneurs. This viewpoint, that an entrepreneur is deemed a failure unless they are engaged in a venture-capital backed enterprise that generates large amounts of revenue, with or without necessarily generating profit, is contrary to their collective experience. Cole’s “unicorn” (personal communication, April 2, 2015) and Garrett’s “rock star” (personal communication, April 9, 2015) constructs, they believe, are placing pressure on how entrepreneurship is being taught in some quarters. Such popular conceptualizations also introduce a risk that such constructs will influence student expectations relative to entrepreneurship education and mentoring while skewing their view of the entrepreneurial landscape and the nature of entrepreneurial success. In fact, Cole’s observation of the apparent rise of an entrepreneur archetype that is focused on the accrual of fame through identity construction rather than monetary gain or social good, may be an indication in just such a shift in the societal understanding of what it means to be an entrepreneur. This skewing of values is also evidenced in Garrett’s portrayal of individuals looking for validation of their entrepreneurial efforts that are in line with those accorded professional athletes or pop musicians.

The emergence of the fame entrepreneur archetype, which Cole describes as individuals who adopt the moniker of entrepreneur without any clear indication of focus on financial gain or the advancement of social good (personal communication, April 2, 2015), represents a
potentially negative development that seems to spring from a pop culture influenced, social construct of the entrepreneur. These individuals appear to be concerned with identity construction and social validation based on that identity rather than on a true business or social enterprise. They are “people who are just looking to do something to say, ‘I’m an entrepreneur, look at me! I left this great job, or didn’t pursue this Wall Street job to do this thing…’” (Cole, personal communication, April 2, 2015). Cole also observes that this group of individuals seems to engage in multiple, failing efforts based on his experience:

It’s the ones who were chasing that fame that I see tend to go at it again, and again, and again, and again, because they don’t care about the money. They don’t care about the customer. They just care about them against what ever it is that they are going against, if they’re trying to develop being known for being against the whatever they’re against, or for whatever they’re for (personal communication, April 2, 2015).

The shift in a societal understanding of the true nature of entrepreneurial effort and the emergence of an archetype of entrepreneurship that is focused on fame accretion rather than the attainment of financial gain or social good may have profound impact on entrepreneurship education and entrepreneurship in general.

Closing.

All of the participants appear to make use of some aspects of Cognitive Apprenticeship in the activities that they engage in when mentoring students. While most of their actions are derived from their own training in the content that is useful to an entrepreneur, their instinctual understanding of situated learning concepts and their focus on helping students develop their own skill as entrepreneurs is evident in their descriptions of their work. It is doubtful, however, that they are consciously using the Cognitive Apprenticeship frame as a guide for their own
mentoring activities. Furthermore, there is no evidence that the participants are using the frame subdomains of learning strategies, modeling, or reflection in their activities with students, but there is evidence that their own development as mentors involve some degree of reflective practice. All participants make extensive use of their own experiences in helping students to develop an understanding of the explicit knowledge that is necessary for success as a business person and entrepreneur, but they also use those experiences as a vehicle for exposing the tacit knowledge that they have personally gained through long histories as entrepreneurs.

Their transition to mentor from entrepreneur is marked by an explicit desire to move from a role as an active entrepreneur to a role that has, as the largest component, a focus on nurturing an appreciation for entrepreneurship as a field of study and for helping to develop a new cohort of active entrepreneurs. This development is a natural extension of their identity as entrepreneur and appears to be continually refined as they engage in mentoring activities.

The participants also highlight the rise of a socially constructed conception of entrepreneur that they believe is shaping entrepreneurial education and identify an emerging archetype of entrepreneurs who are seeking extrinsic self-validation. The former, a developing conceptualization of entrepreneur as engaging in large, venture-capitalized endeavors to the exclusion of any other undertaking, may be causing a shift in focus within entrepreneurial education. The latter, may further skew the entrepreneurship landscape by luring individuals into pursuit of fame without a concomitant dedication to the work involved in launching an endeavor nor to the development of the skill necessary for success.
Chapter 5 - Discussion, Implications, and Conclusions

As noted, the purpose of this study was to explore the ways in which experienced entrepreneurs draw on their own experiences, successes, and failures to guide the development of nascent entrepreneurs. Specifically, this study focused on the actions taken by mentors with prior experience as entrepreneurs and on uncovering the development of the educational strategies used by these mentors as they work with apprentice entrepreneurs.

The central question for this inquiry was: Q1 - How do experienced entrepreneurs make the transition from entrepreneur to mentor-of-entrepreneurs? Leading to sub question: Q1.1 - How do experienced entrepreneurs make use of their own experience when serving as mentors to inexperienced entrepreneurs? These questions serve as a framework for the following discussion.

This chapter will offer a discussion of the participants’ stories as they relate to the study questions, the theoretical frame, and the entrepreneurship education and learning literature. The chapter will also highlight implications for practice based on the study findings, discuss the known limitations of the study, and offer some recommendations for future study before summarizing the work and offering some final thoughts.

Discussion

The interview transcripts provided insight, through the entrepreneur-mentors’ individual stories, into their transition from entrepreneur to mentor-of-entrepreneurs and shed light on the nature of the personal experiences that they share with nascent entrepreneurs. The stories also offer information with relevance to the general field of entrepreneurship education and learning including the applicability of Cognitive Apprenticeship as a lens through which to view the mentors’ practice. In addition, the transcripts yielded a number of interesting concepts that are worthy of future study. These are outlined in the following pages.
**Mentor development.**

The three participants serve as mentors to students of entrepreneurship; a role that they have adopted based on their previous experience as entrepreneurs rather than by virtue of their education. Such is true even of the lone participant who has had some degree of entrepreneurship education. Such a role aligns with the definition of the entrepreneurial mentor offered by St-Jean and Audet (2012) who note that experienced entrepreneurs become entrepreneurial mentors as they engage in a relationship with a nascent entrepreneur. This relationship serves as a vehicle to advance the nascent entrepreneur’s evolution into a full member of the society of entrepreneurs (St-Jean & Audet, 2012). In other words, the participants have developed an identity as a mentor to entrepreneurs that is an outgrowth of their previous identity as entrepreneur and that is shaped by their relationships with their student mentees.

The construction of an identity as a mentor-of-entrepreneurs that is distinct, but is an outgrowth of, a previous identity as an entrepreneur is consistent with a Vygotskian learning approach. That is, such identity construction can be viewed as process that leads to the internalization of the norms of a given social group (Smagorinsky, 2007). This internalization represents a body of tacit knowledge that can then be shared with mentees. Time spent by the three participants as entrepreneurs gives them a rich source of constructed knowledge that spans the content knowledge that was integral to their success as entrepreneurs but also includes the entrepreneurship social group knowledge that allows them full entrée to the world of entrepreneurship. The participants develop their mentor identity over time as they reflect this store of experience-knowledge to their mentees (Roth & Jornet, 2014) through speech in a social environment (Moll, 2014).
Becoming a mentor is an evolutionary process in which the experienced entrepreneur gradually assumes the role of mentor-of-entrepreneurs rather than undergoing a transmutation from entrepreneur, in one instant, to mentor-of-entrepreneurs in another. The identities overlap through time as the budding entrepreneur embraces a role as mentee who becomes a practitioner who becomes a mentor as one role blends into another. As such, the participants experience a gradual and ongoing transformation that begins in their earliest history as entrepreneurs in the making, to their own encounters as mentees of more experienced individuals, continuing to their experience as entrepreneurs, and on to their own adventures as developing mentors. This process proceeds through time as each individual becomes more mentor and less mentee and culminates in a state, in the case of Ron, in which he has transcended the need for further mentoring.

**Experience sharing.**

The knowledge of entrepreneurship held by experienced practitioners, such as the participants, consists primarily of tacit knowledge (Polanyi, 1966/2009) gained of experience (Crossan et al., 1999) which they share with their mentees. This tacit knowledge, which is explicated through a process of interaction between the tacit knowledge holder and the mentee (cf. Crossan et al., 1999) within a social field, serves as a source of information that is useful to student mentees seeking to become entrepreneurs and includes information about the lexicon of the discipline as outlined by Smagorinsky (2007). The explication of the tacit knowledge held by the mentor also allows the mentee access to information about the social norms attending to the use of that knowledge in the community of entrepreneurial practice. The sharing of knowledge, through a mentor-mentee relationship, is of critical importance to the successful development of new entrepreneurs as noted by Ozgen and Baron (2007) and Carsrud et al. (1987).
In this study, the participants offered insight into the types of knowledge that they share and the methods by which they share that information within the higher educational, entrepreneurship education setting. The knowledge shared includes content knowledge that is quantifiable but also knowledge that is more qualitative in nature in line with the recommendations of Behrman and Levin (1984). Such knowledge embraces lessons such as perseverance in the face of failure, the personal attributes that an entrepreneur should consider in developing a team, and the nature of the business environment as it relates to an entrepreneurial endeavor. Such knowledge is shared through anecdote, experiential learning opportunities, and via conversation rather than lecture. The participants also share knowledge of the social norms attendant to the community of entrepreneurs based on their own experiences within that community.

This is not to say that experience sharing is without challenge and is wholly embraced by mentees. The sharing of social norm information and other such qualitative information is particularly fraught with difficulty. Smagorinsky (2007) notes the challenges that can occur when mentees bring a pre-conceived, but potentially faulty, understanding of the social norms embraced within a community of practice to mentoring interactions. This clash is in evidence in Garrett’s observations about digital natives and their reliance on explicit, sometimes incorrect, knowledge gained through online resources and his desire that they engage instead with the transfer of tacit knowledge based on his experience as an entrepreneur. Overcoming such divergence in understanding is a key concern within the realm of experience sharing.

**Cognitive apprenticeship.**

Cognitive Apprenticeship theory appears in an implicit fashion rather than as an explicit acknowledgement of any specific learning or cognition theory used by the participants. Some,
but not all, sub dimensions of the theory are evidenced in the course of the interviews and the
degree to which aspects of the Cognitive Apprenticeship frame appear to be used by the
participants varies with the Content, Method, and Sociology dimensions predominating over
Sequencing. Sequencing appears to be used sparingly based on the data contained in the
interview texts.

The predominance of aspects of the Content and Method dimensions within the learning
space created by the participants during the course of their mentoring activities might be
expected within an educational setting dedicated to the transferal of knowledge that is relevant to
professional practice and which is grounded in the experience of expert practitioners. Such is
also the case with the Sociology dimension given the active learning strategies employed in an
effort to simulate an entrepreneurial effort within the confines of a given educational term. The
overall application of the model presents a mixed picture, however.

Content.

While the Domain Knowledge, Heuristic Strategies, and Control strategies sub
dimensions of the Content dimension are in evidence in the data, it is interesting that there is
apparently little focus on mentoring designed to help develop competence within the realm of
learning strategies, or “knowledge about how to learn new facts, concepts, and procedures”
(Collins, 2006, p. 50) given that such knowledge plays a critical role relative to the maintenance
of individual expertise over the course of an individual’s professional life. A number of authors
(e.g. Litzinger, Wise, & Ha Lee, 2005; Merriam, 2001; O’Shea, 2003; Shokar, Shokar, Romero,
& Bulik, 2002) make the case for fostering the development of competence as a “self-directed
learner” (Grow, 1991, p. 126) as a means for improving education associated with professional
competence making the lack of focus that much more curious. While the apparent lack of activity
within this sub domain might be an artifact of the interview process, the paucity of evidence also suggests that specific interventions designed to inculcate facility in the realm of learning strategies represents a potential area for bolstering a mentoring program designed to foster success as an entrepreneur.

Method.

The lack of opportunities for implementation of the Method sub dimension of Modeling on the part of the mentors within the context of their mentoring activities is almost certainly a result of the situation of their programs within a higher educational setting. That is, the localization of their mentoring practice in a formal educational setting, working with students, rather than in an active enterprise provides less opportunity to demonstrate entrepreneurship tasks. This is not to say that demonstration of such tasks is impossible in an educational setting. The venture accelerator program, IDEA, at Northeastern University provides a platform for just such demonstration of entrepreneurship tasks (Collette, 2012).

Sequencing.

The relative lack of focus on Sequencing within the context of mentoring for these participants is more than likely due to the fractionated nature of discrete coursework within their programs rather than a lack of appreciation for the need to offer mentoring in a way that builds knowledge, skill, and appreciation for the craft of entrepreneurship in a step-wise manner. The absence of Sequencing within the confines of a given mentoring engagement may also be an issue of level. That is, Sequencing might be more easily applied as a concept within the context of overall curriculum rather than as a component of individualized mentoring in a constrained time period.
Sociology.

The Sociology dimension offers a glimpse into the active learning strategies employed by the participants as they mentor their students. The mentors work to craft a realistic learning setting that builds community and fosters teamwork in a replicated entrepreneurial environment. Such an environment invokes the work of John Dewey (Dewey, 1897/1982, 1926, 1938/1996) and the application of experience in the service of learning.

As noted in the opening passages of this thesis and highlighted in the results, one particular challenge facing the mentors is that of developing intrinsic motivation within the mentees. While some might argue that the achievement of a grade reward, diploma, or other externally provided denotation of success could serve as a personal goal set by a student, this conceptualization is at odds with the notion of intrinsic motivation, engagement in the performance of tasks due to personal interest and skill-based goal attainment, promoted by (Collins, Brown, et al., 1991).

Entrepreneurial education and learning.

The rise in interest in entrepreneurial education and learning since the 1970s has been described by numerous authors (e.g. Aldrich, 2012; Harrison & Leitch, 2008) and this interest has spawned an increasing number of academic programs dedicated to offering education that is focused on entrepreneurship (Kent, 1989). The participants validate this trend. While this trend is generally viewed as positive in nature by the three, there is still evidence of disagreement within the discipline when it comes to the rationale for such programs. That is, while there appears to be consensus relative to the need to foster in students the development of the skills, mindset, and knowledge that allows the entrepreneur to operate successfully in a business environment fraught with change (Young & Sexton, 1997), the participants are skeptical that entrepreneurship
education programs can turn each student into a successful entrepreneur with or without concomitant mentoring. On the surface, this reported ambivalence strikes to the heart of a key question within the higher education ecosystem: What is the purpose of higher education in a given discipline?

If the purpose of discipline education is to create individuals who have mastered a set of facts and who are then guaranteed success in that discipline, then the skepticism of the participants is valid given their observations. If the purpose of such education, however, is to equip a student with a body of knowledge and a set of skills that position them to operate effectively in a rapidly changing environment, then perhaps entrepreneurial education programs can serve as an exemplar due to the focus on problem-solving skills (Young & Sexton, 1997), the use of experiential learning models (Mitchell & Chesteen, 1995), and that ideal that success in entrepreneurial education results in the positioning of a student to operate in complex environments that span multiple systems including economic, social, and cognition domains (Sven, 1998); environmental characteristics that describe many organizations and endeavors.

The data show that there is an underlying belief, on the part of the participants, that entrepreneurial education involves both exposure to content knowledge and engagement with a process of becoming as the student is guided through experience that is transformed into tacit knowledge as outlined by Politis (2008). The process of becoming an entrepreneur, facilitated by an experienced entrepreneur serving as a mentor, is as important as exposure to formal content knowledge (Politis, 2008). To support such knowledge acquisition, the participants expose their mentees to content knowledge but also explicate their own tacit knowledge while guiding them through experiences that allow the students to develop their own store of tacit knowledge.
Emerging concepts.

Some of the most potentially interesting data are associated with the emerging concepts advanced by the participants in the course of the interviews. These concepts, team member archetypes, the influence of media on the societal view of the entrepreneur, and the observation of an archetype of an entrepreneur as fame-seeker, provide a rich source for future consideration.

The study of project team makeup and the benefits of teamwork in the pursuit of project goals is well established (cf. Boh, Ren, Kiesler, & Bussjaeger, 2007; Enberg, Lindkvist, & Tell, 2006; Erhardt, 2011; Graen et al., 2006). It is also known that tapping into tacit knowledge held by members of the team can foster innovation (Mascitelli, 2000). The participants reflect these sentiments in offering their firm conviction that care should be taken in the selection of collaborators, partners, and co-founders in the context of an entrepreneurial endeavor in order to provide a sound foundation for the success of the enterprise.

In the context of the choice of team members, Cole’s use of fictional characters as a metaphor for the members of an ideal team is particularly interesting. While there are examples of the use of fictional characters as a frame to discuss business ethics (cf. Gerde & Foster, 2008), team dynamics (cf. A. Taylor & Greve, 2006), and bias against women as leaders (cf. Kruse & Prettyman, 2008), his blending of characters from multiple sources seems to be unique and worthy of further investigation and amplification as a vehicle for the rapid creation of strong teams.

In discussing the influence of popular media on the conceptualization of the entrepreneur within society, it is clear that the participants are concerned that a focus on a particular type of entrepreneur archetype is skewing societal perceptions and is doing so in a manner that might prove to be harmful in the long run. Specifically, the participants reflect a fear that the portrayal
of entrepreneur as a leader of an endeavor that is funded by venture capital and which seeks large monetary returns, a portrayal that is at odds with their own experiences, represents a risk in that such a conceptualization may dissuade individuals from embarking on or persisting in an endeavor with more modest goals. Should such individuals fail to thrive in their endeavor based on a faulty conceptualization of the true nature of entrepreneurship, the impact on overall economic activity could be significant and negative given that small firm persistence represents a significant fraction of job growth within the economy (Haltiwanger et al., 2013).

Popular media focus on and conceptualizations of entrepreneurship may be the spur for the emergence of an apparently new and unique entrepreneur archetype, that of the fame entrepreneur. The concept of a fame entrepreneur is one that is not reflected in the entrepreneurship literature and does not align with typical definitions of entrepreneur (viz. "Entrepreneur," n.d.) as one who incurs risk in the pursuit of financial profit or social good. This emerging concept presents risk within the entrepreneurial landscape in a similar manner as a skewing of societal understanding of the nature of entrepreneurship. Namely, that individuals who adopt the title of entrepreneur, without similarly adopting a specific monetary profit or social good goal for their enterprise, may erode the ability of true entrepreneurs to access resources. This as potential resource providers and customers encounter entrepreneurs who care little about the solution of customer problems in pursuit of the attainment of enterprise profit goals or the provision of good to society. Further, increasing attention devoted to fame entrepreneurs in popular media may present nascent entrepreneurs with an unrealistic picture of the entrepreneurial landscape, the nature of the risks involved, and the work required for entrepreneurial success.
The possible emergence of this entrepreneur archetype, an archetype rooted in fame accretion rather than attainment of monetary profit or social good goals, is a concept that deserves future study and further amplification.

Implications for Practice

In providing a glimpse of the lived experiences of three entrepreneur-mentors, this study offers a number of implications for practice including possibilities relative to the transition from entrepreneur to mentor-of-entrepreneurs, the sharing of tacit knowledge, and the application of the Cognitive Apprenticeship frame. The emerging concepts explicated during the course of the investigation also carry significant implications in the general realm of entrepreneurship education.

Mentor development.

The transition from a role as an expert entrepreneur to a mentor of students of entrepreneurship appears to have occurred, in these participants, through a natural progression from mentee to entrepreneur to mentor-of-entrepreneurs over a given span of time. Their transition also seems to be focused on the use of practical and tacit knowledge gained through entrepreneurial activity rather than as a consequence of specific academic training and/or activity. All three have engaged in multiple endeavors that helped them build a store of knowledge that is a gestalt of success, failure, frustration, and the tacit knowledge attained through experience. The creation of this complex system of knowledge, developed in an extra-academic setting, provides perspective that transcends the boundaries between the commercial world and the world of the academy. The resulting personal knowledge store represents a rich source of support for students and can help prepare students for post-graduation success assuming that such mentoring is offered in an effective manner.
Development of the mentors themselves might take the form of a close collaboration of practitioners of entrepreneurship with academics with specialized knowledge of pedagogy, andragogy, curriculum development, and learning theory. Such collaboration would foster the explication of the tacit knowledge held by the entrepreneur and introduce the entrepreneur to material that would provide a theoretical basis for actions taken instinctually as a part of a mentoring practice. Mentor development might also take the form of peer collaboration or as a system that provides academic mentors to entrepreneur mentors.

The development of mentoring competence might also be accelerated over the long term by introducing aspects of mentoring into the entrepreneurship education curriculum itself. For instance, a program might be developed such that advanced students provide directed support for less advanced students as a component of experiential learning activities within an entrepreneurship education curriculum. That is, developing a program that is aligned with past conceptions of apprenticeship in the trades. Such a program might also provide opportunities for greater application of aspects of the cognitive apprenticeship frame that seem to be in absent, based on the information gained through this study.

**Entrepreneurship education.**

The Cognitive Apprenticeship theoretical frame is a particularly apt construct for a field of academic study, such as entrepreneurship, that has a cognitive component and a component that is aligned with the application of practical skills. While the participants make use of their own experience and seem to make use of the Cognitive Apprenticeship frame instinctually, they don’t appear to make use of all aspects of the frame. Particularly absent is a reference to the Sequencing subdomain. Expanding entrepreneur-mentors’ knowledge of the frame can help to facilitate knowledge transfer and skill development in mentees by increasing the range of
concepts that might be brought to bear by mentors within the learning environment. For instance, expansion of Modeling, perhaps in the form of a tightly-coupled cooperative education program within entrepreneurial firm partner organizations, would allow students to observe their mentors engaged in entrepreneurial activities before developing their own endeavors. Providing guidance to mentors of entrepreneurship to encourage them to make greater use of all of the domains and sub domains of the cognitive apprenticeship model may help to foster greater development within students of entrepreneurship by expanding the repertoire of techniques available to the mentor.

The participants’ past experience as entrepreneurs, combined with their current experience as mentors to students of entrepreneurship, place them in a unique position to both participate in and to observe several worlds. These worlds include academia, business, the entrepreneurship community, and society at large. This singular position allows them the ability to share their experience but also allows them to develop an understanding of the changing landscape of entrepreneurship within the larger world. As such, they are in a better position to identify gaps between entrepreneurship theory, entrepreneurship practice, and the changing societal conception of entrepreneurship. By identifying these gaps, the mentors are in a position to offer their students knowledge of the practice of entrepreneurship, based on practical and theoretical knowledge, and to help students avoid falling prey to inaccurate characterizations of entrepreneurship.

The model of tapping into the store of knowledge held by experienced entrepreneurs and making such tacit knowledge explicit in an academic setting through mentoring programs may have utility in other areas of the University beyond typical professional-practice programs. This would be particularly true should such a model be predicated on a Cognitive Apprenticeship
framework. For instance, developing a practitioner-mentor model for domain-specific education, where practitioner is any expert with significant experience in the application of domain-specific knowledge in an extra-academic setting, would help to bridge the gap between the learning-world of the University and the action-world of business and commerce.

Turning to other implications relative to the Cognitive Apprentice model, there appear to be opportunities for greater application of aspects of the model in the Sociology, Sequencing, and Method dimensions. Application within the Sociology, in particular, presents an opportunity for supporting student development by fostering a greater focus on Intrinsic motivation within the mentees. Developing a greater reliance on Intrinsic motivation would act as a moderating force relative to Garrett’s concern about student focus on the extrinsic motivation derived from grades, successful course completion, and degree attainment. Extending the application of sub dimensions within the Sequencing dimension would probably be most effective at the level of overall curriculum rather than within a course or individual mentoring interaction.

Societal implications.

Some of the most interesting findings of the study involves the observations of the participants relative to a societal construction of entrepreneur that is in flux and the identification of an archetype of entrepreneur based on a search for fame rather than financial gain and/or social good. Both of these have implications for society and within the realm of entrepreneurship education.

Within society, the creation of a model for entrepreneurial success that is built on a conception of entrepreneurship as a venture-capitalized, billion-dollar endeavor is at odds with the reality of entrepreneurial activity within society based on the participants’ experience. The ascendance of such a model poses a risk in that individuals who do embark on an entrepreneurial
endeavor may have an unrealistic understanding of the landscape, the risks, and the potential rewards. Conversely, such a model may also dissuade individuals with more modest entrepreneurial goals from embarking on their endeavor in the first place. Because such modest entrepreneurial efforts, when they are successful, constitute a significant portion of economic activity, there is a risk to society as a whole. That is, if economic activity is skewed to a few large-scale endeavors based on a venture capital model rather than more broadly based set of activities then overall entrepreneurial activity might be disrupted.

Fame entrepreneurship poses a separate set of risks. These include the possibility that individuals engaging in such pursuits will consume available investment resources without a return in terms of financial gain or the creation of social good, that fame accretion will crowd out more productive forms of entrepreneurship, and that individuals who eschew an aggressively public persona will be dissuaded from engaging in entrepreneurial endeavors despite having a potentially viable idea.

**Extra-academic settings.**

While this study focused on entrepreneur-mentors in a higher education setting, many of the findings have salience within extra-academic settings devoted to the development and support of the entrepreneurs such as the Boston Entrepreneurs’ Network (http://www.boston-enet.org/), the Boston Entrepreneurship Center (http://www.bostonec.com/team.html) and the Boston Business Operations Group (http://www.bizopsgroup.com/). Of particular relevance is the application of the Cognitive Apprenticeship frame within the context of programs designed to offer mentoring to nascent entrepreneurs.
Limitations

This study is subject to a number of potential limitations. These include the limited number of participants, the gender of the participants, and the geographic diversity of the participants.

The limited number of participants would be of greater concern were this a quantitative study. In fact, Creswell (2013, p. 259) offers that a narrative study focused on one to three individuals is sufficient to define a quality study. Gender and geographic diversity are of greater concern, however.

All of the participants in the study were male and their approach to entrepreneurship and mentoring may differ from the approaches by women of similar background. The participants were also natives of the eastern United States and currently reside in a major metropolitan area in the northeastern United States which has a unique culture. These attributes can certainly mean that culture, geography, and the local entrepreneurship environment influence the participants’ perspective on entrepreneurship, societal forces, and observations of the entrepreneurship environment.

Another limitation of the study is that it is focused on data extracted from interviews rather than longitudinal observation of participants at work mentoring students. A longitudinal study of mentors at work, with frequent debriefing, might yield different perspectives of the work of mentoring nascent entrepreneurs or expose additional detail relative to the entrepreneurship mentoring process, the development of entrepreneur-mentor identity, and/or the application of the theoretical frame within an entrepreneurship mentoring framework.

The final limitation of this study involves the concept of positionality within qualitative research. As noted in the opening chapter of this study, researcher bias can influence the manner
in which research is undertaken (Takacs, 2002, 2003). Such is true with this study as in any other. The trustworthiness of the study has been supported as outlined in Chapter 3 with member checking, use of thick rich description, and data analysis software. However, it is impossible to separate the researcher’s past history, experiences, social position, and other influencers from the material reflected in this report. Any such qualitative research is necessarily framed through the lens of the researcher’s past.

**Recommendations for Future Research**

There are a number of opportunities for future research based on the findings of this study. These include research into mentor transition and development, the application and extension of the Cognitive Apprenticeship frame within a mentoring environment, and the use of the practitioner-mentor model in other fields of endeavor. The emerging concepts uncovered during the research also provide a number of potentially fruitful avenues for future research. Future research opportunities include investigations of: 1) entrepreneurial team member archetypes and applications, 2) the influence of culture on the societally-constructed definition of entrepreneur, 3) the concept of an entrepreneur archetype based on fame accretion rather than financial gain or the attainment of social good, 4) the encouragement of student entrepreneurial efforts post graduation, including a means to ensure the continued development of potentially good entrepreneurial ideas that are abandoned by students, 5) the long term development of the mentor-mentee relationship within the field of entrepreneurship, 6) entrepreneurs-turned-mentors over the long term designed to offer greater insight to mentor identity construction and to provide greater insight to the ways in which such mentors work to help neophytes develop greater skill as entrepreneurs.
Another potentially interesting avenue for a quantitative study emerged during a discussion of the notion that entrepreneurs often fail before achieving success (Cole, personal communication, April 2, 2015). As Cole relates, a group of venture capitalists purportedly have about 25 years of anecdotal data that show that it is better for them to invest in “a first-time unproven entrepreneur than somebody who’s tried and failed because, in their experience, the good entrepreneurs succeed the first time” (Cole, personal communication, April 2, 2015). This could be a fruitful area for future research to 1) determine if this contention is true and, if it is, 2) to determine the characteristics that lead to first-time entrepreneurial success, and 3) to develop educational and mentoring programs that support the development of those characteristics.

Conclusions and final thoughts

This study has explored the ways in which experienced entrepreneurs make the transition from entrepreneur to mentor-of-entrepreneurs and how such individuals make use of their own lived experience as they engage with students as a mentor. That is, how does an individual with expertise borne of experience turn from doing to sharing and what do they decide to share with those to whom they provide guidance?

The transition from a role as a master of a particular realm of expertise to a role as a mentor to those who seek entrée to that realm is a journey that has profound implications. Future participants in the expert community can benefit greatly from the explication of the tacit knowledge held by past practitioners within the domain that is provided through mentoring. Mentoring activities can also provide benefits to the mentor through knowledge gained as a consequence of interaction with mentees and by the solidification of knowledge through sharing that knowledge in a social community. This study offers evidence that entrepreneur-mentors make the transition to the role of mentor as a natural extension of their role as entrepreneur and
that they incorporate their own knowledge and the knowledge that they gained from their own mentors as they engage with students.

This study has also surfaced a number of emergent concepts including a model for specific team member archetypes that may be viewed as integral to the success of an entrepreneurial endeavor, the changing conception of entrepreneur within society, and the emergence of an entrepreneur type that is focused on the acquisition of fame rather than financial gain or social good. It has also offered a number of areas for future research.
References


*Contemporary Economic Policy, n/a-n/a.* doi: 10.1111/coep.12096


Top ad campaigns of the 21st century; 11 Dos Equis the most interesting man in the world. (2015, 2015/01/12/). Advertising Age, 86, 0020.


Appendix A

IRB Action

Figure A1

Notification of IRB Action

NOTIFICATION OF IRB ACTION

Date: February 23, 2015
IRB #: CPS15-02-07

Principal Investigator(s):
Karen Reiss Medwed
Arthur E. LaMan III

Department:
Doctor of Education Program
College of Professional Studies

Address:
20 Belvidere
Northeastern University

Title of Project:
The Mentor’s Tale: Cognitive Apprenticeship and Entrepreneurial Education—A Narrative Study

Participating Sites:
N/A

DHHS Review Category:
Expedited #6, #7

Informed Consents:
One (1) signed consent form

Monitoring Interval:
12 months

APPROVAL EXPIRATION DATE: FEBRUARY 22, 2016

Investigator’s Responsibilities:

1. The informed consent form bearing the IRB approval stamp must be used when recruiting participants into the study.
2. The investigator must notify IRB immediately of unexpected adverse reactions, or new information that may alter our perception of the benefit-risk ratio.
3. Study procedures and files are subject to audit any time.
4. Any modifications of the protocol or the informed consent as the study progresses must be reviewed and approved by this committee prior to being instituted.
5. Continuing Review Approval for the proposal should be requested at least one month prior to the expiration date above.
6. This approval applies to the protection of human subjects only. It does not apply to any other university approvals that may be necessary.

C. Randall Colvin, Ph.D., Chair
Northeastern University Institutional Review Board

Nan C. Regina, Director
Human Subject Research Protection

Northeastern University FWA #4630
Appendix B

Participant Recruitment Materials

Figure B1

Recruitment of Participants Copy for Email and Social Media

Recruitment of participants copy for email and social media:

Hello — I hope that you are doing well.

I am currently a student in the EAD program at the College of Professional Studies at Northeastern University. I am recruiting participants for a study of experienced entrepreneurs who are engaged in mentoring activities with students of entrepreneurship as a part of the requirements for the degree. This study is designed to identify the ways in which experienced entrepreneurs support the development of students that they mentor and to highlight the experiences, knowledge, and problem-solving strategies that they share with students as a part of that developmental process.

You must meet the following general criteria to participate:
1. You must be an adult >21 years of age.
2. You must have experience as an entrepreneur.
3. You must be mentoring students of entrepreneurship in a higher educational setting.
4. You must agree to be interviewed and participate in other study-related activities that are expected to take less than 4 hours of your time in total.

Participation is entirely voluntary. All information will be kept confidential.

If you would like to participate in this study, and would like to know more, please contact me via email or by the phone number listed below to set up an appointment to discuss the study in greater detail.

Best,
Art LaMan III
laman.ai@husky.nyu.edu
774-573-5139

[Northeastern University logo]

[APPROVED stamp]
Recruitment of participants screening script for email/phone

Potential participant name:

Are you currently serving as a mentor to students of entrepreneurship? ... Y or N
If so, are you mentoring these students in a higher education setting? ... Y or N
If so, what college or university?

Would you be interested in being considered for inclusion in this study? ... Y or N

Participation is entirely voluntary. All information will be kept confidential.

Thank you for your time. I’ll be back in touch with you by ________ to set up an appointment for an interview or to let you know that you were not selected for this current study.

Best,

Art LaMan III

luman.a@husky.neu.edu

774-573-5139

Northeastern University
Human Subject Research Protection

APPROVED
NU/IRB 061592-01

VALID THROUGH 2-24-17

Northeastern University - Human Subject Research Protection
Rev 3083/14
Appendix C

Informed Consent Documents

Figure C1

Informed Consent Page 1

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Informed Consent Document

Northeastern University, College of Professional Studies, EdD Program

Name of Investigator(s): Principal Investigator, Korn Rein, Medford, PhD. Student Researcher, Ari LaMat

Title of Project: The Mentor's Tale: Cognitive Apprenticeship and Entrepreneurial Education – A Narrative Study

Informed Consent to Participate in a Research Study

We are inviting you to take part in a research study. This form will tell you about the study, but the researcher will explain it to you first. You may ask this person any questions that you have. When you are ready to make a decision, you may tell the researcher if you want to participate or not. You do not have to participate if you do not want to. If you decide to participate, the researcher will ask you to sign this statement and will give you a copy to keep.

Why am I being asked to take part in this research study?

We are asking you to participate in this study because of your background as an experienced entrepreneur and your role as a mentor to students of entrepreneurship.

Why is this research study being done?

The purpose of this study is to uncover the ways in which experienced entrepreneurs engage as mentors to inexperienced entrepreneurs. This study seeks to uncover the knowledge that experienced entrepreneurs choose to share with their mentees, the processes that experienced entrepreneurs use to share that knowledge, and the ways in which the experienced entrepreneur shapes the social learning environment for their mentees.

What will I be asked to do?

If you decide to take part in this study, we will ask you to do the following:

1. Participate in an interview at a mutually convenient time and place in which you will be asked to describe your history as an entrepreneur, your work with students of entrepreneurship, and other aspects of the mentoring process. This interview is expected to last approximately 90 minutes.
2. Review transcripts of the interview in order to add any additional information that you deem relevant.
3. Provide access to any historical information that you believe to be relevant to the study to the extent you are comfortable doing so.

Your total time commitment for these activities is expected to be less than 4 hours in total.

Where will this take place and how much of my time will it take?

You will be interviewed in your own home or at a time and place that is convenient for you. The interview will take about 90 minutes. About 1 week later, we will provide you with a written transcript for you to review, validate, and amend, as you believe appropriate.

Will there be any risk or discomfort to me?

There is no foreseeable risk to you as a consequence of participating in this study.

Will I benefit by being in this research?

You are expected to derive benefit by participating in this study based on your contribution to the continued development of entrepreneurial education. You may be exposed to ideas that could be used to improve your abilities as a mentor.

Who will use the information about me?

Your part in this study will be confidential. Only the researchers on this study will see the information you provide.

No reports or publications will use information that can identify you in any way. Out of abundance of caution, participants will be identified by pseudonym and identifiable only to the researchers through the use of a codebook that is physically secured and/or encrypted (in the case of digital files). Only the researchers will have access to the raw data files.

The following specific protocols will be followed to ensure data security.

APPROVED

Northeastern University - Human Subject Research Protection
Rev. 3/28/2011
Figure C2

Informed Consent Page 2

4. All original electronic files such as interview audio files, written drafts, and notes will be backed up to an encrypted, cloud-based storage system such as Carbonite for example in order to insure continued access to the materials while providing for confidentiality through data security.

5. Physical security for electronic media such as data cards will be maintained by ensuring that all electronic files are stored in encrypted form with password known only to the researcher and the principal investigator when not in the direct possession of the researcher or in a locked cabinet.

6. All physical materials (field notes, memos, etc.) will be stored in a locked cabinet controlled by the researcher when not in the physical possession of the researcher.

In rare instances, authorized people may request to see research information about you and other people in this study. This is done only to be sure that the research is done properly. We would only permit people who are authorized by organizations such as the Northeastern University Institutional Review Board to see this information.

Can I stop my participation in this study?
Your participation in this research is completely voluntary. You do not have to participate if you do not want to and you can refuse to answer any question. Even if you begin the study, you may quit at any time. If you do not participate or if you decide to quit, you will not be subject to any negative actions on the part of the researchers.

Who can I contact if I have questions or problems?
If you have any questions about this study, please feel free to contact the person mainly responsible for this research project:
Arthur E (Art) LaMan III
Email: human.subjects@northeastern.edu
Phone: 774-573-5139
You can also contact the Principal Investigator
Dr. Karen Reiss Medwed
Email: k.reissmedwed@neu.edu

Who can I contact about my rights as a participant?
If you have any questions about your rights in this research, you may contact Nan C. Reagin, Director, Human Subject Research Protection, 960 Renaissance Park, Northeastern University, Boston, MA 02115. Tel: 617.373.4588. Email: n.reagin@northeastern.edu. You may call anonymously if you wish.

Will I be paid for my participation?
You will NOT be paid or given a gift to participate in this study.

Will I cost me anything to participate?
There are no anticipated costs for you to participate in this study.

Is there anything else I need to know?
You must be at least 18 years old, have experience as an entrepreneur, and be engaged in mentoring students of entrepreneurship to participate.

I agree to take part in this research.

Signature of person agreeing to take part

Date

Printed name of person above

APPROVED

18.06.2016

19.06.2016

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Rev. 10/1/2014
Appendix D

Sample Interview Script

The following prompts are representative of questions that will be asked in the interview. As this interview is designed to be semi structured and free flowing in support of the research technique employed, it is expected that follow up probes will be employed throughout.

##

Participant code: ______________________

1. When did you first become an entrepreneur?
2. Are there any experiences that you had as an entrepreneur that stick out in your mind?
3. If you had to pick a song that exemplifies your experience as an entrepreneur, what would it be?
4. When you first begin to mentor a student, how do you approach the process?
5. How would you describe any changes that occur as your relationship with your mentee develops?
6. What are some of the things that you believe are important for students to understand about being an entrepreneur?
7. What stories of your own experience as an entrepreneur do you share with students?
8. How do you believe that students understand these experiences?
9. What is the most difficult challenge that you face in mentoring students?
10. Is there anything else that you would like to tell me about mentoring students of entrepreneurship?

Thank you for your time.

After the tapes are transcribed, I’ll be back in touch with you to allow you the opportunity to review the transcript and to add, clarify, and correct anything that you believe needs revision.
Appendix E

Data Analysis Codes

Figure E1

Coding Schema

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<thead>
<tr>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Domain knowledge</td>
<td></td>
</tr>
<tr>
<td>Heuristic strategies</td>
<td></td>
</tr>
<tr>
<td>Control strategies</td>
<td></td>
</tr>
<tr>
<td>Learning strategies</td>
<td></td>
</tr>
<tr>
<td>Method</td>
<td></td>
</tr>
<tr>
<td>Modeling</td>
<td></td>
</tr>
<tr>
<td>Coaching</td>
<td></td>
</tr>
<tr>
<td>Scaffolding</td>
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</tr>
<tr>
<td>Articulation</td>
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</tr>
<tr>
<td>Reflection</td>
<td></td>
</tr>
<tr>
<td>Exploration</td>
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</tr>
<tr>
<td>Sociology</td>
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<td>Situated learning</td>
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<td>Community of practice</td>
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<tr>
<td>Intrinsic motivation</td>
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<tr>
<td>Cooperation</td>
<td></td>
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<tr>
<td>Sequencing</td>
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</tr>
<tr>
<td>Increasing complexity</td>
<td></td>
</tr>
<tr>
<td>Increasing diversity</td>
<td></td>
</tr>
<tr>
<td>Global to local skills</td>
<td></td>
</tr>
</tbody>
</table>

Future Study

<table>
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</thead>
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<td>Entrepreneur characteristics</td>
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<td>Personalities for co-founders</td>
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<td>Independent research</td>
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<td>Outgrowing mentoring</td>
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<td>Three types of entrepreneur</td>
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<td>Emerging</td>
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<td>Failure</td>
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<td>Not learning from success</td>
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<td>Learning from failure</td>
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<tr>
<td>Business Environment</td>
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</tr>
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<td>Rapid Change/Adaptation</td>
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<td>Entrepreneur</td>
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</tr>
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<td>Society construction of entrepreneur</td>
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<td>Entrepreneur profile</td>
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<td>Mentoring</td>
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<td>Importance of mentoring</td>
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<td>Reciprocation of mentoring</td>
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<td>Challenges of mentoring</td>
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<td>Tacit knowledge explication</td>
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<td>Enjoying work</td>
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<td>Strong tie-weak tie</td>
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<td>Tenacity</td>
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<td>Entrepreneur tenacity</td>
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<td>Mentor tenacity</td>
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<td>Mentee tenacity</td>
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<td>Importance of teaching entrepreneurship</td>
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