

8-15-2014

A Correlational Study of Self-Directed Learning and Entrepreneurial Success in Southeast Kentucky

Frank Tudela Carothers

Follow this and additional works at: <https://scholarsjunction.msstate.edu/td>

Recommended Citation

Carothers, Frank Tudela, "A Correlational Study of Self-Directed Learning and Entrepreneurial Success in Southeast Kentucky" (2014). *Theses and Dissertations*. 90.
<https://scholarsjunction.msstate.edu/td/90>

This Dissertation - Open Access is brought to you for free and open access by the Theses and Dissertations at Scholars Junction. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Scholars Junction. For more information, please contact scholcomm@msstate.libanswers.com.

A correlational study of self-directed learning and entrepreneurial success in Southeast
Kentucky

By

Frank Tudela Carothers

A Dissertation
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
in Community College Leadership
in the Department of Leadership and Foundations

Mississippi State, Mississippi

August 2014

Copyright by

Frank Tudela Carothers

2014

A correlational study of self-directed learning and entrepreneurial success in Southeast
Kentucky

By

Frank Tudela Carothers

Approved:

James E. Davis
(Major Professor)

William M. Wiseman
(Committee Member)

Arthur D. Stumpf
(Committee Member)

Stephanie B. King
(Committee Member)

David T. Morse
(Graduate Coordinator)

Richard L. Blackburn
Dean
College of Education

Name: Frank Tudela Carothers

Date of Degree: August 15, 2014

Institution: Mississippi State University

Major Field: Community College Leadership

Major Professor: Dr. James Davis

Title of Study: A correlational study of self-directed learning and entrepreneurial success in Southeast Kentucky

Pages in Study: 75

Candidate for Degree of Doctor of Philosophy

Many factors contribute to business and entrepreneurial success. Raw material, labor, capital, and entrepreneurship are common inputs into most business organizations (enterprises). Entrepreneurship is the one factor of production that is needed in all successful business organizations. In Southeast Kentucky, there has been much attention given to small business development and the need for more entrepreneurship. However, little research has been done on the “self-directedness” and “emotional intelligence” that are needed for entrepreneurial success.

This study investigated the possible association between self-directed learning and emotional intelligence with entrepreneurial success in a Southeast Kentucky group consisting of independent small business owners. This study also examined the relationships of age, gender, annual salaries, years of college education, and years of business experience with entrepreneurial success.

The Learning Preference Assessment (LPA), the online BarOn EQ-i survey, and a short demographic survey were used in this study. Of the 250 entrepreneurs randomly selected, 104 responded by completing and returning the Self-Directed Learning

Readiness Survey instrument (SDLRS) and the demographic questionnaire. Due to technical difficulties, the results from the online BarOn EQ-i survey were not available.

The mean SDLRS score for all 104 entrepreneurs was 239.63. The minimum SDLRS score was 206, and the maximum SDLRS score was 284. Correlational analysis revealed a moderate-size, positive correlation of SDLRS with years of experience. More experience tended to go with higher test scores. Also, a moderate- to large-size positive correlation of SDLRS scores with sex (gender) was discovered. Males tended to score higher than females on the SDLRS. There was no correlation whatsoever of SDLRS scores with age. There was a large positive correlation of educational level with SDLRS scores. Individuals with higher education were associated with higher scores. Lastly, there was a very large correlation between SDLRS scores and income. All variables, except age and experience, were significant when compared to self-directedness.

DEDICATION

This dissertation is dedicated to those whose influences in my life have made this educational experience possible. This is dedicated in part in memory of my father, Leslie C. Carothers, for all the long days we worked hard together without the benefits of a formal college education. Also, I dedicate this to my mother, Livia T. Carothers, who always taught me the benefits of hard work and obtaining more education.

This is also dedicated to my wife, Pamela Carothers, and son, Alex James Carothers. Thank you both for your love, inspiration, and encouragement throughout this long process. Both of you set high standards for the entire family. Finally, this is dedicated to my father- and mother-in-law, James and Pattie Wilson. In the absence of my parents, you have always treated me as your son. Thank you for your love and confidence.

ACKNOWLEDGEMENTS

I would like to express my sincere thanks and appreciation to all those individuals who assisted me by giving me their guidance and direction in order to make this project possible. First, I would like to express my gratitude to Dr. James Davis for his advice and commitment to all his students. Additionally, I would like to thank Dr. Marty Wiseman and Dr. Wayne Stonecypher for their example, support, and good teaching. I would also like to express my deepest appreciation to Dr. Bruce Ayers for his initial work in allowing Kentucky Community and Technical College System employees in Southeastern Kentucky to participate in this PhD program. Lastly, I want to thank Dr. Tim Zimmerman for his sincere support and advice and for pointing me in the right direction on more than one occasion. I also want to thank the quiet, unsung heroes, who returned survey instruments, made recommendations, found my errors, answered telephone calls, and kept smiling at me throughout this lengthy project.

TABLE OF CONTENTS

DEDICATION		ii
ACKNOWLEDGEMENTS		iii
LIST OF TABLES		vi
CHAPTER		
I. INTRODUCTION		1
Background		1
Self-Directed Learning		3
Statement of the Problem		4
Purpose of the Study		4
Research Questions		5
Limitations		5
Definition of Terms		6
II. REVIEW OF THE RELATED LITERATURE		10
Success and the Small Business Entrepreneur		13
The Entrepreneur: Born or Made?		15
The Role of Self-Directed Learning in Entrepreneurial Success		20
Adjusting Training to Self-Directed Learning		24
The Role of Emotional Intelligence in Life Success		26
The Measure of Emotional Intelligence		27
Emotional Intelligence and Personality		29
Emotional Intelligence and Positive Psychology		30
Empirical Findings on Emotional Intelligence		31
Emotional Intelligence at Work		31
Emotional Intelligence and Leadership		34
Case Studies of the Correlation of Self-Directed Learning, Emotional Intelligence and Small Business Entrepreneurial Success		36
Conclusion		40
III. METHODOLOGY		43
The Literature		44
Research Hypotheses		44

Participants.....	44
Instrumentation for BarOn EQ-i Test	45
Instrumentation for Self-Directed Learning Readiness Scale.....	46
Validity of Research Methods	46
Research Questions.....	47
Research Design.....	47
Null Hypotheses.....	47
Procedure and Data Collection	48
Summary	50
 IV. RESULTS	 51
Results of Data Analysis.....	51
Response Summary.....	51
Demographics of Entrepreneurs in Southeast Kentucky	52
Research Questions.....	54
Research Question #1	54
Results for Research Question #1	55
Research Question #2	55
Results for Research Question #2.....	55
Research Question #3	56
Results for Research Question #3.....	56
Summary of Results.....	58
 V. CONCLUSIONS.....	 61
Background.....	61
Methodology.....	62
Implications.....	62
Summary.....	63
 REFERENCES	 66
 APPENDIX	
A. DEMOGRAPHIC SURVEY	71
B. MISSISSIPPI STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD APPROVAL	73

LIST OF TABLES

1	Components of a Business System.....	2
2	Educational Attainment of Participants.....	53
3	Descriptive Statistics for Respondents' SDLRS Scores, Experience, Age, and Income	53
4	Skewness and Kurtosis for SDLRS Scores, Experience, Age, and Income.....	54
5	Correlations for SDLRS, Experience, Sex, Age, Degree, and Income	56
6	ANOVA Results for SDLRS.....	57
7	Coefficients for Predictors	58
8	Explained Variance for Predictors	58

CHAPTER I

INTRODUCTION

Background

Many different factors contribute to personal and professional success. In the business world, many leaders contend that their company's greatest asset is their people. Such a mantra acknowledges that money, capital, natural resources, and technology alone will not guarantee long-term entrepreneurial or intrapreneurial success. Of all the factors of production needed to start, run, and sustain a business, only one factor can successfully respond to an opportunity. Entrepreneurship is the one factor of production that can create jobs and innovative products by instilling value and utility into an existing window of opportunity. All businesses operate as systems that transform the basic inputs of raw material, labor, capital, money, and entrepreneurship into outputs such as products, jobs, salaries, wages, and taxes, as shown in Table 1.

Table 1

Components of a Business System

Inputs	→	Transformation	→	Outputs
Entrepreneurship		Value and Utility		Products
Raw Material		(Time, Place, Form)		Jobs
Labor				Taxes
Capital/Money				

Establishing a small business has always been a natural sequence for some graduates of community colleges. Congress created the Small Business Development Centers (SBDCs) in 1980. The SBDCs were funded jointly by the federal government, the U.S. Small Business Administration, and state and local public and private agencies. In many cases these centers were housed in community colleges (Cohen & Brawer, 2008).

The difference between entrepreneurship training, small business development, and workforce training in most community colleges can be found in the different program centers and in the people for whom the programs are intended. At most community colleges, the content of entrepreneurship training ranges from developing a business plan, to obtaining licenses, to employing other people to operate or run a business.

Some community colleges are involved in business incubation, which is the practice of assisting emerging small businesses by creating an environment in which business owners are provided with opportunities to develop entrepreneurial skills. For some colleges, this may be just offering entrepreneurs office space or clerical support.

In the 1990s, the Center for the Study of Community Colleges (Cohen & Brawer, 2008) examined the scope and size of entrepreneurship training in the nation's community colleges and found that most city colleges had some involvement. This involvement usually included training assistance through the college's workforce development departments or continuing education divisions. In the Kentucky Community and Technical College System, some of these entrepreneurial training programs are provided by the college's workforce solution departments.

The entrepreneur, whether a community college graduate, college student, or a motivated self-starter is the catalyst for innovation and change in the world of business. He or she is usually competitive, self-reliant, and also an independent thinker.

Self-Directed Learning

The culture of learning varies by socioeconomic class, ethnic community, region, and even gender. It is not a single, undifferentiated phenomenon. According to Jarvis (1987), one of the most influential factors affecting self-directed learning is the way in which individuals have been socialized to think about learning and about themselves as learners (as cited in Candy, 1991). While life circumstances of some entrepreneurs may constrain their ability to be successful self-directed learners, these same circumstances may propel them into learning choices that absolutely require self-direction in learning.

The attributes of self-directed learners and individuals with high emotional intelligence (EI) seem to be related, or at least similar in nature. This research study questioned whether these individual attributes also describe successful entrepreneurs. Emotional quotient (EQ) can give a relative measure of a person's innate EI.

Statement of the Problem

One of the problems investigated was whether a significant relationship exists between an entrepreneur's EI as measured by the BarOn EQ-i test, and the entrepreneur's business success as measured by level of income and years in business. The second problem investigated was whether a significant relationship exists between self-directed learning readiness (SDLR) as measured by Guglielmino's (1979) Self-Directed Learning Readiness Scale (SDLRS) and entrepreneur's success as measured by level of income and years in business.

Purpose of the Study

The purpose of this study was to explore and describe the EI and SDLR of successful entrepreneurs in Southeast Kentucky. This study also provides a demographic description of successful entrepreneurs in Southeast Kentucky.

As institutions understand the characteristics, circumstances, and skill sets of successful entrepreneurs, they will be in better positions to provide learner-centered teaching and guidance to prospective entrepreneurs.

The Kentucky Community and Technical College System (KCTCS) has offered courses in entrepreneurship and small business management both as 2-year college-credit classes and as Workforce Development classes since its inception in 1997. At all 16 KCTCS community colleges, entrepreneurship and small business management classes are offered as 3-hour elective classes in the 2-year Applied Science Business Administration programs.

At Somerset Community College (SSC), one of the 16 community colleges in the KCTCS system, one business instructor has taught entrepreneurship and small business

management classes for the past 15 years. Community college business educators must be cognizant of individual success factors and traits such as EI and self-directed learning. Furthermore, government leaders at all levels in the United States have asked their citizens to become more entrepreneurial and innovative.

This has particularly been the case after the recent stock market crashes, mortgage meltdowns, government bailouts of publicly traded companies, and national double-digit unemployment rates. Even with the increased interest in, and national call for, entrepreneurship, there have been considerable interest and debate on whether or not entrepreneurial ability, or entrepreneurial skills, can be learned in a formal classroom setting. This study explored those unanswered concerns.

Research Questions

This study examined the following research questions:

1. Do entrepreneurs in Southeast Kentucky have a higher self-directed learning readiness than other average adults as assessed by the Self-Directed Learning Readiness Scale (SDLRS)?
2. Is there a relationship between self-directed learning readiness and an entrepreneur's income and years of business experience?
3. Is there a relationship among an entrepreneur's age, gender, educational level, and self-directed learning readiness?

Limitations

The limitations of this study are the following:

1. Survey respondents constituted a sample of convenience, because only those entrepreneurs who voluntarily chose to respond to two elective surveys comprised the study sample.
2. Because response to the SDLRS was voluntary, those oriented toward self-directedness may have been more inclined to respond than those who were not.
3. Because this study spanned multiple small businesses and multiple entrepreneurs in various sectors, it did not differentiate characteristics of entrepreneurial success.
4. A further limitation derives from relatively low response rate in this study. Entrepreneurs are notoriously busy (as evidenced by the high number of hours worked per week by the sample), meaning that they have minimal time for issues that are not directly related to the running of their businesses. Completing formal research questionnaires would probably not rank among their highest priorities. Thus, the sample in this study may not be entirely representative of the target population, and extremely busy self-employed entrepreneurs may be underrepresented.

Definition of Terms

1. Achievement is measured by a sustainable level of income and five consecutive years in business.
2. Average EQ Score is the average emotional quotient score of a 100 with standard deviation of 15 based on more than 4,000 respondents in Bar-On's research.

3. BarOn Emotional Quotient Inventory (EQ-i) Test “comprises 133 brief items and employs a five-point response set (ranging from “Not True of Me” to “True of Me”)” (Bar-On, 2004, p. 3).
4. Break Even occurs when total cost equals total revenues.
5. Business Failure Rate is a statistic measuring business failures.
Approximately 50% of all new businesses fail within the first five years.
6. Capital is the machinery, materials, and infrastructure needed to start a business.
7. Emotional intelligence (EI) is the ability to identify, assess, and control the emotions of oneself, of others, and of groups.
8. Emotional quotient (EQ) is a way to measure how a person recognizes emotions in him- or herself, or others, and manages these emotional states.
9. Entrepreneurship is calculated risk taking and a major factor of production in all businesses. It is used to define risk taking in small businesses.
10. Factors of Production are the inputs in any system of business. They consist of raw materials, labor, capital, money, professional management, and entrepreneurship.
11. Gazelle is a company that is growing its revenues by at least 20% per annum for 4 years.
12. Kentucky Community and Technical College System (KCTCS) was established in HB 1 (1997) as the eighth institution of higher education under the direction of the Council on Postsecondary Education with the

purpose of overseeing a system of community and technical colleges in Kentucky.

13. Learning Preference Assessment (LPA) is also referred to as the Self-Directed Learning Scale.
14. Money is the medium used to buy capital and is a major factor of production.
15. Non-Response Effect is systemic differences between respondents and non-respondents.
16. Opportunity Cost is the value of what must be given up in order to obtain something else.
17. Paradigm is a conceptual framework within which theories, laws, and generalizations are formulated.
18. Product is a good, service, or idea.
19. Profit is the difference between total revenue and total cost.
20. Response Rate is the total number of returned surveys divided by the total number of surveys distributed.
21. Risk vs. Reward is the tradeoff between the amount of risk taken weighed against the potential reward to be gained.
22. Self-Directed Learning Readiness Survey (SDLRS) is also referred to as the Learning Preference Assessment (LPA). The SDLRS contains 58 Likert-type items.
23. Serial Entrepreneur is an entrepreneur who starts and exits several companies one after the other.

24. Small Business is a company with fewer than 500 employees.
25. System Theory is a flowchart that can describe all businesses. The inputs of the system include raw materials, capital, money, and entrepreneurship. These inputs will be transformed into products that add utility and value. The outputs of the system include products, jobs, wages, salaries, taxes, profits, loss, and waste.
26. Utility is a product's usefulness such as the benefit of time, place, and possession, or ownership.
27. Value is the ratio of perceived benefits compared to cost, or price.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

This review examines the anecdotal and empirical literature that has begun to emerge, dedicated to distinguishing the entrepreneurial mindset from others. Entrepreneurship as a concept, and models or profiles of the characteristics that predict successful entrepreneurs, is a major theoretical concern of this literature. Many current models are moving away from the classical or human capital model of entrepreneurs to favor a more interactive and structural model of how a particular businessperson takes advantages of the opportunities offered him or her by circumstances (Baycan-Levent & Kundak, 2009; Block & Koellinger, 2009; Ley, 2006; Macko & Tyszka, 2009; MacPherson, 2009; Mandelman & Rojas, 2007; Nguyen & Nguyen, 2008). Because many entrepreneurs happen to be immigrants, this line of research has been situated to a great extent in case studies of immigrant entrepreneurs (Ley, 2006).

The research into the characteristics of the entrepreneur has begun to converge on a consensus in which entrepreneurs stand out because of their tolerance for risk, their ability to see opportunities and act upon them, their capacity to understand and inspire those who work for them, their overall high level of optimism and their drive for self-actualization, and for doing what they want to do in life, especially when it is connected to a greater mission (Macko & Tyszka, 2009). Throughout this research it was found that entrepreneurs are particularly adept at learning on the job, at learning things for

themselves, and at negotiating the difficulties and uncertainties of the entrepreneurial lifestyle primarily by their being characterized by responsibility, self-control, and honesty (Nguyen & Nguyen, 2008). These characteristics appear to parallel both self-directed learning and EI. For this reason, this study seeks to further refine the model of the entrepreneurial mindset by exploring the degree to which self-directed learning and EI contribute to entrepreneurial success (Boyle, 2005; Bumpus & Burton, 2008; Fenwick, 2001; Lobler, 2006; Rae, 2006). With regard to self-directed learning, the construct of entrepreneurial learning has emerged as a separate area of research, which clearly encompasses learning styles and also self-directed or constructivist learning research (Rae, 2006).

Most studies of how entrepreneurs learn on the job and what might be the best way to train entrepreneurs implicitly include self-directed learning in the model. It is also true that many entrepreneurs may not become successful because they failed to learn new skills on the job or were unrealistically optimistic about their businesses. Thus, it is inferred that something more than the capacity of self-directed learning is required to make a good entrepreneur and that would be a mechanism that would provide a person with the power to control emotions and make reasonable decisions about ventures. As a result, EI has been brought into the study of success at work to examine this added internal character trait or ability that distinguishes between success and failure (Boyle, 2005). The review therefore also includes the complicated research literature on EI, which is marked by a meandering pathway due to its development along two different lines of research, emerging as what is termed *trait EI* and *ability EI*, as well as EI as a construct being obfuscated by popularization that made for it many more claims than the

theoretical research allowed (Abraham, 2004; Akerjordet & Severinsson, 2007; Alsmadi & Alsmadi, 2005; Ashkanasy & Dasborough, 2003; Bar-On, 2010; Barbuto & Burbach, 2006; Butler & Chinowsky, 2006; Carmeli & Josman, 2006; Carrick, 2010; Di Fabio & Palazzeschi, 2008; Grewal & Salovey, 2005; Grubb & McDaniel, 2007; Lam & Kirby, 2002; Murphy & Janeke, 2003; Oginska-Bulik, 2005; Parker & Sorensen, 2008; Parthasarathy, 2009; Petrides, 2010; Salami, 2010; Tok & Morali, 2009; Wang & Huang, 2009). Because of this evolution, any review of EI still requires some degree of parsing out of the different models of EI and also some consideration to the continuing struggle by research to validate various scales developed to measure EI in terms of their discriminant, predictive, and convergent validity (Akerjordet & Severinsson, 2009).

An important part of this line of research, exploring the discriminant validity of the EI construct per se, is efforts to compare EI and various factors in the Three Giant or Big Five personality scales, with findings generally leading to the conclusion that though overlap exists, EI does in fact chart out a particular set of skills apart from personality factors (Tok & Morali, 2009). An especially promising line of research in terms of linking EI and entrepreneurial thinking is Bar-On's (2010) recent research into the overlap between EI and positive psychology. A host of empirical studies have applied EI to the work environment to determine the degree to which EI is predictive of success at work, or the demonstration of positive behaviors such as organizational citizenship behavior; EI is correlated with being better able to handle stress, coming very close to linking EI with a primary element of the entrepreneurial mindset (Oginska-Bulik, 2005). With regard to participation in organizational citizenship behavior, a voluntary behavior beyond the call of duty that would seem to be an antecedent of entrepreneurial learning,

Di Fabio and Palazzeschi's (2008) finding that self-efficacy, self-awareness, and organizational citizenship behavior are linked comes very close to correlating aspects of EI with elements of entrepreneurship. There is also little doubt that entrepreneurship demands a measure of leadership skills in order to start up and manage a small business, and a robust line of research has linked EI with transformational leadership, again headed toward linking EI and entrepreneurial traits or abilities (Ashkanasy & Dasborough, 2003). At present, however, while the various literatures on the entrepreneurial mindset, entrepreneurial learning, self-directed learning, and EI appear to be converging, few studies have directly examined the degree to which self-directed learning or EI contributed to entrepreneurial success. Yurtsever's (2003) findings that EI contributed to the efficacy of moral entrepreneurs (persons who enter into business for moral reasons), linking EI with likelihood of entrepreneurial success, and Blume and Covin's (2009) findings that EI contributes to one of the notable forms of entrepreneurial learning and acting and intuition reinforce the notion that self-directed learning, EI, and entrepreneurship, when brought together in empirical studies, will help to establish a more solid model of entrepreneurial learning and success.

Success and the Small Business Entrepreneur

It is axiomatic that entrepreneurs have special qualities that make their businesses a success (Baycan-Levent & Kundak, 2009; Block & Koellinger, 2009; Ley, 2006; Macko & Tyszka, 2009; MacPherson, 2009; Mandelman & Rojas, 2007; Nguyen & Nguyen, 2008). MacPherson (2009) studied a number of classic case studies of entrepreneurs—Ray Kroc of McDonald's among others—and concluded that “outstanding entrepreneurs are driven by compelling visions and learning, and the

creative capacity to acquire and use information” (p. 49). In solving problems on the job, and through experience, Kroc epitomized for MacPherson (2009) the idea of self-directed learning. After reviewing the biographies of 30 noted entrepreneurs, MacPherson (2009) found that in all cases the successful entrepreneur acquired business-specific content knowledge; learned the mechanics of business; learned about context, customers, and the competition; studied people and leadership principles; reflected on company values; and discovered how to create learning organizations. When reviewing how entrepreneurs learn, MacPherson (2009) also found that most learn through experience, learn from others, use self-directed learning, read, have conversations with others, engage in team learning, and master critical self-reflection. Self-directed learners “determine both the direction and design of (their) own learning” and learn not only through reading but also through questioning, listening, and talking (MacPherson, 2009, p. 50). Critical self-reflection involves learning about oneself and recognizing one’s strengths and weaknesses, as well as developing a sense of self-reflection.

Studies have found that many young graduates are attracted to entrepreneurship because it offers them a chance to make a living but keep their independence. An important finding with regard to learning style was that “during their education, entrepreneurs prefer to spend their time gaining practical experience rather than attending lectures” (Martinez, Mora, & Vila, 2007, p. 116).

One of the lingering problems in entrepreneurial studies is the fact that many of the psychological assumptions behind the conceptualization of entrepreneurs—for example, that they are more prone to risk—have not been proven clinically or empirically (Macko & Tyszka, 2009). For this reason, Macko and Tyszka (2009) examined three

groups of students—those who were already entrepreneurs, those who had declared an intention to open up their own businesses, and those who had only participated in a course on entrepreneurship—to determine their tolerance for risk. The results indicated that those who were already entrepreneurs were more likely to accept risky situations but that in well-defined risky situations set up by the questionnaire no difference among groups with regard to risk emerged. Entrepreneurs exhibited higher levels of optimism and self-confidence, which may create the illusion that they are more tolerant of risk, when it appears that while they will take on risk to achieve goals, they do not seek risk. Also, in a second study involving a naturalistic business scenario of risk, Macko and Tyszka (2009) found that entrepreneurs took more risks than non-entrepreneurs. Again, the results suggest that risk-proneness is not a trait of entrepreneurs but that when challenged by risk, entrepreneurs have qualities, self-efficacy, and higher self-confidence, which allows them to accept risk. Thus, “entrepreneurs’ uniqueness concerns uncertainty and not risky situations” (Macko & Tyszka, 2009, p. 484).

The Entrepreneur: Born or Made?

In breaking down the categories of entrepreneurs into various components, studies have found that a good many self-employed entrepreneurs are immigrants, causing the development of a new term, *migrant entrepreneurship*. The creativity of migrant entrepreneurs has been noted, with studies indicating that migrant entrepreneurs have “risk-bearing, organizational and innovative attitudes and they are very successful in perceiving niches to fill in the market as well as very open to changes and alterations” (Baycan-Levent & Kundak, 2009, p. 288). In this context, an entrepreneur is defined as a person who “undertakes to organize, manage and assume the risk of running a business”

(Baycan-Levent & Kundak, 2009, p. 285). Whether or not entrepreneurs are born or made, Baycan-Levent and Kundak (2009) argued that in many ways inborn characteristics contribute to entrepreneurship but that the working backgrounds of parents and the opportunities made available to one in society enable the emergence of an entrepreneur. By one rubric, there are four types of entrepreneurs—the innovator, the calculating inventor, the over-optimistic promoter, and the organization builder—with some types related to profit motive, others to a desire to innovate, some to personality, and some to market opportunities. Nonetheless, it is generally accepted that entrepreneurs “seek opportunities and innovation in order to be successful” (Baycan-Levent & Kundak, 2009, p. 286). All entrepreneurship must contend with risk-bearing, organizing, and innovating. Immigrant entrepreneurs usually start their own businesses just after arrival, using contacts in the immigrant community, while ethnic entrepreneurs build on connections and patterns of interaction in a community and minority entrepreneurs establish a community apart from the majority population. Migrant entrepreneurs are often motivated to go into business because of their less favorable status or the threat of discrimination. Also, they have the opportunity to exploit informal production methods within the migrant community, as well as a network with ethnic people, thus giving them an advantage over mainstream businesses. Second-generation migrant entrepreneurs then are more likely to break out of the confines of an enclave and go into producer services and professional services. In short, “the requirements for successful entrepreneurship are based on being different and doing different things to the others” (Baycan-Levent & Kundak, 2009, p. 289).

In their study of Turkish migrant entrepreneurs in Switzerland, Baycan-Levent and Kundak (2009) found that personal characteristics, particularly the desire to be the boss, were the fundamental driving motivation to become entrepreneurs. Though Baycan-Levent and Kundak (2009) did not address EI as a personality factor contributing to the desire to be an entrepreneur, the results of the study established that personal characteristics are the basis of the entrepreneurial decision.

Block and Koellinger (2009) analyzed the factors associated with the satisfaction with start-ups in nascent entrepreneurs. The study was based on previous research findings that self-employed, as opposed to employed, persons usually have higher levels of job satisfaction, even if they make less money than they would if employed elsewhere. Block and Koellinger (2009) commented that “the high input and low instrumental output of entrepreneurial behavior appears to be inconsistent with the traditional micro-economic views of rational decision-making and purely monetary preferences of individuals” (p. 192). Also, many start-up decisions are often influenced by biased perceptions, overconfidence, and motives that “cannot be readily inferred from their behavior” (Block & Koellinger, 2009, p. 192). One study found that in terms of job satisfaction, self-employment provides procedural utility, which refers to the “non-instrumental pleasures and displeasures of process, in contrast to the more standard view of economic utility, which is concerned only with instrumental outcomes such as monetary gains or market transactions” (Block & Koellinger, 2009, p. 192). Thus, because they experience autonomy and flexibility and enjoy the actual work they do, they are more motivated and satisfied at work. Block and Koellinger (2009) surveyed more than 20,000 entrepreneurs in Germany in start-up or early-stage businesses using a self-

created questionnaire about satisfaction with start-up, level of income, level of creativity, and the amount of opportunity perceived for their businesses. The results indicated that while entrepreneurs do care about money, they also derive utility from other factors such as the achievement of independence and creativity and the nature of the work itself, as well as the fact that they made a decision of their own free will (as opposed to being forced into self-employment by a long spell of unemployment).

Constant, Shachmurove, and Zimmermann (2007) described migrant entrepreneurs as “working hard to fulfill their dreams” and speculated that they may have become entrepreneurs because “they involve ethnicities that have stronger preferences or genes that foster the drive to self-employment” (p. 74). They attempted to determine any personal factors linked to entrepreneurship, based on previous studies into the role that family background, occupational status, financial constraints, and the nature of the work that contributed to entrepreneurship played. Studies of entrepreneurs in the United States, for example, found that immigrants are more likely to be self-employed than natives, especially if they come from countries with large sectors of self-employed businesspeople. The results of their study of the characteristics of entrepreneurs found that age and education, hypothesized to account for self-employment, did not play a decisive role in determining whether or not a person was self-employed.

In a study of Vietnamese entrepreneurs, seeking to find a correlation between personal values and the likelihood of becoming an entrepreneur, Nguyen and Nguyen’s (2008) findings were similar to those of studies of entrepreneurs in the United States. That is, most entrepreneurs value happiness, a sense of accomplishment, a comfortable life, family security, and national security. They were also characterized as intellectual,

capable, responsible, self-controlled, and honest. In terms of why they become entrepreneurs, answers ranged across four factors: “to meet market demands, to gain control over their work and/or financial aspects, to lift others off unemployment, and to pursue a desire or fulfill their capability” (Nguyen & Nguyen, 2008, p. 141). The fact that the results correlate with those of American entrepreneurs suggested to Nguyen and Nguyen (2008) that, while cultural factors must be considered in developing models for entrepreneurial practice in different countries, a universal model of the entrepreneurial value system may be more likely to emerge.

In many cases, entrepreneurship may end as self-employment, when an employee of a large company strikes out on his or her own to start a consultancy or other one-person business. Generally, “self-employed workers are...regarded as creative and high qualified individuals who have abandoned the comfort of salaried positions to invent new products, production process and distribution methods” (Mandelman & Rojas, 2007, p. 1). In many positive descriptions of this state of employment, the fact that many self-employed persons make less than they might have working for a large company, the lure of being one’s own boss is more than enough compensation. Mandelman and Rojas (2007) questioned whether or not the self-employed model works as well in less productive economies (they studied Argentina) and argued that in these economies self-employment is more often than not undertaken in the “depressive context with high unemployment levels and no business opportunities” meaning that self-employment is in fact a “transition to employment of last resort or disguised unemployment” (Mandelman & Rojas, 2007, p. 2). This trend is proven by the fact that economic recessions result in an increase in the number of people seeking self-employment and that this trend “sharply

reverts when the economy starts growing” (Mandelman & Rojas, 2007, p. 3). Still, statistics on the self-employed also found a subpopulation of “experienced and talented individuals who were able to accumulate enough capital and managerial abilities to start their own business projects and generate employment” (Mandelman & Rojas, 2007, p. 4). These are the pure entrepreneurs, defined as “highly qualified individuals with exceptional entrepreneurial abilities who perceive that the income they may obtain from self-employment is at least as high as any other possible wage offer they may obtain in the job market” (Mandelman & Rojas, 2007, p. 9).

The Role of Self-Directed Learning in Entrepreneurial Success

A number of learning theories have converged to examine what appears to some to be the unique ways in which entrepreneurs learn their trade on the job (Boyle, 2005; Bumpus & Burton, 2008; Fenwick, 2001; Lobler, 2006; Rae, 2006). Rae (2006) argued that the construct of entrepreneurial learning per se has emerged as a separate area of study, but that “it is an area that is not well understood” (p. 39). Using the example of technology entrepreneurs, Rae sought to redress this situation by developing a model, employing social constructivist theory, of what entrepreneurial learning looks like. For purposes of the study, learning was defined as “an emergent, sense-making process in which people develop the ability to act differently, through knowing, doing and understanding why” (Rae, 2006, p. 40). The social constructivist model was adopted as most research on entrepreneurial cognition has been focused on individual cerebral characteristics of entrepreneurs viewing people as computers. By contrast, interpretative approaches “have sought to understand the situated nature of the entrepreneurial experience in a ‘lifeworld’ perspective by using a range of qualitative research methods”

(Rae, 2006, p. 40). Rae interviewed a number of technology entrepreneurs after 5 years of experience in their businesses to garner their life stories and experiences in business, by way of determining some constructs to describe entrepreneurial learning. Rae found that one of the first steps is the development of an entrepreneurial identity, usually through a narrative of construction through the influence of family or others. Simply acquiring the skills to be an entrepreneur is not enough; one must come to see oneself as an entrepreneur. Such an identity is created either through dissatisfaction with one's current reality or with the initiation of a new venture. Second, the study found that entrepreneurs learn how to learn contextually, through immersion within an industry, opportunity recognition, and innovation through participation. This then allows the entrepreneur to develop "practical theories of entrepreneurial action" (Rae, 2006, p. 49). This process also entails creative imagination and prospective sense-making, so that one can envisage a future but also determine how the venture can be created. Third, Rae found that all entrepreneurs engaged in a negotiated enterprise, which involves negotiating changes over time and with a number of stakeholders in many different relationships. That is, the entrepreneurial business is "dependent on the outcome of negotiated relationships with other parties" (Rae, 2006, p. 49). Therefore, through these stages, Rae built a model of entrepreneurial learning that goes beyond the social theory of learning to consider the social constructivist basis of the process of learning in an entrepreneurial enterprise. Insofar as this theorization of entrepreneurial learning includes types of experiential learning, it encompasses and also moves beyond a social context to the notion of self-directed learning.

Learning styles theory has increasingly been applied to workplaces to determine what kinds of learning styles make for better employees or what match is required between employee and manager to make for an optimal work environment (Boyle, 2005). With regard to entrepreneurial situations, a number of theories have emerged attempting to explain how entrepreneurs learn on the job. Fenwick (2001) examined the process of learning in enterprise cultures by enlisting enactivist ecological theory of learning, “which holds that human beings, natural objects and cognition emerge together as intertwined systems” (p. 243). Enactivist theory posits that knowledge emerges in systems and is embedded in the conduct and relationships of the individual actors working in the system and that learning is a process of “continuous invention and exploration, linked to disequilibrium experienced in systems” (Fenwick, 2001, p. 243). This conceptualization is opposed to the more traditional view of knowledge as a “substantive thing to be acquired or ingested by learners as isolated cognitive agents, thereafter to exist within them” (Fenwick, 2001, p. 243). Fenwick (2001) argued that even constructivist theories of knowing are too concerned with what the individual learns and do not take into consideration that much knowledge is embedded, not accessible to the conscious reflexive mind, and “that environment and identity co-emerged in enactments of cognition” (Fenwick, 2001, p. 247).

By contrast, situated cognition and communities of practice theories see learning as taking place within a social process. The enactivist position is that human subjectivity is fluid among human cultural discourses but also arises from non-human systems involving objects, spaces, natural forces, and other biological systems. Fenwick argued that this perspective is more in tune with the discourse of reflexive modernization in the

context of the risk society in which employees are expected to construct their own biographies and workplace learning occurs through empowering the individual “as a self-responsible choice-maker” (Fenwick, 2001, p. 249). Under the so-called new contractualism, employers “desire self-reflective entrepreneurial workers who thrive on uncertainty, are measured by innovation, and accept responsibility for the risks attending their actions and choices” (Fenwick, 2001, p. 249). Even organizations today seek to hire “autonomous, self-regulating, productive individuals with energy, initiative, self-reliance and personal responsibility” (Fenwick, 2001, p. 249). This purported entrepreneurial employment then is designed to help a person reach more personal fulfillment and self-development on the job. Others argue that an “ethos of enterprise has pervaded all spheres of our consumerist risk society, such that the dominant project of individuals’ lives is constructing and self-regulating their own human capital” (Fenwick, 2001, p. 250). Because most entrepreneurial situations are not bounded by institutionalized roles and norms, learning will be more relational and flexible, and entrepreneurs must learn to “mobilize resources, see opportunities and act quickly” (Fenwick, 2001, p. 251). In the entrepreneurial life, invention becomes a way of being, characterized by continual innovative problem-solving. That stated, in studying the careers of the female entrepreneurs reviewed by Fenwick, many explanations of how they developed the knowledge to start a business venture “defied conventional understandings of individualistic dreaming-planning-doing which dominate contemporary business planning practice” (Fenwick, 2001, p. 251) involving unanticipated opportunities and continual reworking of a business idea over time. Entrepreneurial learning was self-described by the respondents as knowing on the fly, navigating the mess, do-or-die

learning, discovering the way, learning by the seat of one's pants, learning by trying it out, and tinkering.

Overall, entrepreneurial learning is described as “fluid and located in activity” (Fenwick, 2001, p. 254). At the same time, because of the constantly changing nature of markets, most entrepreneurs had difficulty summarizing any definitive lessons learned from their experience. In sum, Fenwick argued that enactivist theory, embedding learning in uncertain group processes, serves as an accurate model for the kind of direct learning required in entrepreneurial jobs.

Adjusting Training to Self-Directed Learning

Entrepreneurship education is also on the increase, whereby universities now have courses that teach entrepreneurs how to be successful. Bumpus and Burton (2008) described a course in which students were taken on a journey of being an entrepreneur, from the decision to become an entrepreneur, to the development of successful business ideas, to the management and growth of the budding firm. The courses also train future employees to be an intrapreneur within a corporation, a type of employee that focuses on customer satisfaction. Studies have shown that intrapreneurs are characterized by a generalist point of view, an action orientation, an optimistic approach, and a dedication to new ideas (Bumpus & Burton, 2008). Following from this, entrepreneurs are distinguished by a passion for their businesses and the belief that their businesses will improve others' lives. Entrepreneurs are also distinguished from others by entrepreneurial alertness, which is “the ability to notice (needed innovations) without engaging in deliberate search” (Bumpus & Burton, 2008, p. 304). In this, they tend to break free of

either-or, security, stereotypical, or probability thinking. Examples of these types of thinking are included in the case study course.

Lobler (2006) argued that a constructivist as opposed to lecture-oriented approach to teaching entrepreneurship would be more effective insofar as entrepreneurs must develop their own roadmaps in uncertain business environments in order to achieve success. Lobler argued that “to create and invent new ‘roadmaps’ for unknown territories, entrepreneurship education should take into account more and more process driven pedagogy with an open learning process” (p. 20). As such, education must question common knowledge and engage in creative destruction in order to help students understand the need to develop new roadmaps in their thinking. Studies have found that 80% of entrepreneurial knowledge is based on experience, while only 20% is based on new knowledge, meaning that “the learner has to play an active role in gaining experience from their activities” (Lobler, 2006, p. 23).

Raffo, O’Connor, Lovatt, and Banks (2000) offered evidence that while the gap between knowledge and outcomes in entrepreneurial enterprises needs to be closed, training entrepreneurs through formal education may not be the ideal way to do so. They determined this by studying a population of entrepreneurs, with the finding that “business owners/managers regarded reflecting on context-specific work and real-time problem solving within and without a community of practice/practitioners” as the best way for an entrepreneur to learn (Raffo et al., 2000, p. 216). As a result, they proposed that a social model of learning including the idea of situated learning and cultural capital might be more effective in training entrepreneurs. According to situated learning and activity theorists, “authentic learning only effectively takes place within a localized and

purposeful situated context” (Raffo et al., 2000, p. 217). This is clearly in contrast to most business training activities, which are too often abstracted away from real contexts. Many of the respondents mentioned self-learning as a primary means of learning on the job. Many rejected formal educators and sought out knowledgeable mentors already in the field, “who possessed crucial skills deemed useful to the enterprise” (Raffo et al., 2000, p. 226). Overall, respondents confirmed that most entrepreneurial learning happens on the job, in situational contexts, often through self-learning, and recommended that colleges change over to more grounded and practical protocols for teaching entrepreneurial skills.

The Role of Emotional Intelligence in Life Success

EI as a construct has become the subject of a robust literature exploring not only the validity of the construct but also its application to positive psychology, success in life and work, and its role in leadership (Abraham, 2004; Akerjordet & Severinsson, 2009; Alsmadi & Alsmadi, 2005; Ashkanasy & Dasborough, 2003; Bar-On, 2010; Barbuto & Burbach, 2006; Butler & Chinowsky, 2006; Carmeli & Josman, 2006; Carrick, 2010; Di Fabio & Palazzeschi, 2008; Grewal & Salovey, 2005; Grubb & McDaniel, 2007; Lam & Kirby, 2002; Murphy & Janeke, 2003; Oginska-Bulik, 2005; Parker & Sorensen, 2008; Parthasarathy, 2009; Petrides, 2010; Salami, 2010; Tok & Morali, 2009; Wang & Huang, 2009). Grewal and Salovey (2005) argued that the new interest in EI “represents a stage in the evolution of our thinking about the relation between passion and reason and represents an important outgrowth of new theories of intelligence” (p. 330).

While it may have been once believed that EI competencies are inborn, the consensus has more recently established that these competencies can be developed. As a result, leadership development programs at many companies have begun to incorporate

an EI training component. One survey found that four out of five companies today are including EI considerations in hiring and have incorporated EI in training and development. Whether or not the mode by which EI is introduced to employees, the half-day workshop, is effective remains a question. Carrick (2010) tested the efficacy of a 4-hour EI training program using pre- and post-test modeling along with interviews to determine outcomes. The study also made use of the Emotional Quotient Inventory (EQ-i) assessment, which was administered before and after the session. The study found that EI competencies could be improved with a half-day session but only if combined with post-training coaching sessions to reinforce the lessons learned. The competencies improved in particular were assertiveness, emotional self-control, impulse control, problem solving, emotional self-awareness, accurate self-assessment, initiative, self-confidence, achievement, and flexibility. Stress control is particularly important in saving companies the costs of lost work time, and “emotionally intelligent individuals who are flexible, adaptable and can cope with stress have an advantage in the changing dynamic environment” (Carrick, 2010, p. 63).

The Measure of Emotional Intelligence

The fact that EI was popularized by Goleman as a kind of nebulous power that could grant a person “an advantage in any domain in life” has caused many researchers to worry that the explosion of interest in EI that resulted from this popularization resulted in a field where there is no consensus on what EI is “or even whether the concept meets scientific criteria for a meaningful psychological construct” (Byrne, Dominick, Smither & Reilly, 2007, p. 341). As a result of this worry, and of what might be called the life-

course of EI theory in the press, a large sector of EI research still entails seeking scientific validity for the construct.

The study of EI is complicated by the fact that two models of EI have emerged in the literature, the first derived from the work of Grewal and Salovey (2005) in the 1990s, and the second by the work of Goleman and Bar-On during the past decade. While the earlier model classically links EI to the accurate perceptions of emotions, the ability to access and utilize emotions, the ability to understand emotions, and the ability to reflect on and regulate emotions, the latter model focused on how EI can determine a person's potential for learning practical skills "as well as for self-realization" (Akerjordet & Severinsson, 2009, p. 58). Together, the two models nonetheless appeared to Akerjordet and Severinsson (2009) as complementary in contributing to a general idea that EI is a "multidimensional concept that represents a set of core abilities for identifying, processing and managing emotions" (p. 58). Based on this observation, Akerjordet and Severinsson (2009) created two instruments, the Emotional Intelligence Scale (EIS) and the Emotional Reactions and Thoughts Scale (ERTS). Like many other studies of EI, the purpose of the study was to determine if the EIS and ERTS are valid instruments for measuring EI. The EIS and ERTS questionnaire study results support "the multidimensional conceptualization of EI" (Akerjordet & Severinsson, 2009, p. 61). Thus, EI scales can be created by synthesizing original scales to better measure the presence of EI in particular populations. Grubb and McDaniel (2007), along with other researchers, believed that the EI tests in current use need additional research, in this case in terms of their convergent validity when compared with Big Five personality test constructs.

Emotional Intelligence and Personality

Petrides, Pita, and Kokkinaki (2007) have devoted their research to determining where trait EI stands in the factor space of Eysenckian and Big Five personality measures. In essence, they have conducted studies to determine the criterion, discriminant, and incremental validity of EI. They tested a population of 92 males with the Trait Emotional Intelligence Questionnaire, the Eysenck Personality Questionnaire, and the Traits Personality Questionnaire, finding that EI is indeed a compound personality construct “located at the lower levels of the two taxonomies” (Petrides et al., 2007, p. 273). They also selected six criteria drawn from the Giant Three and Big Five personality scales, life satisfaction, rumination, and four coping styles, with EI predicting four of these criteria in the Giant Three scale and five in the Big Five scale. Overall, the results of their studies “constitute strong evidence of discriminant validity (of EI) vis-à-vis the Giant Three and Big Five personality dimensions” (Petrides et al., 2007, p. 283).

Petrides (2010) also sought to further refine the construct of trait EI by determining if it correlates with Big Five personality factors and also to belief-importance theory. According to this theory, individuals are successful if they can perceive convergences and divergences between “their belief that they can attain goals and the importance that they place on these goals” (Petrides, 2010, p. 697). Petrides concluded that including belief importance may contribute to refining the EI construct as it brings into the measure of EI not only one’s personality traits but also one’s attitude toward a context (life domain), “thus carrying more information than either personality or context alone” (p. 708).

Emotional Intelligence and Positive Psychology

Bar-On (2010), an earlier proponent of EI, has always argued that there is a strong association between EI and positive psychology. He also linked EI to Charles Darwin's observation that emotional expression played an important part in survival and adaptation, as EI "stresses the importance of emotional expression and views the outcome of emotionally intelligent behavior in Darwinian terms of effective adaptation" (Bar-On, 2010, p. 54). Thus, emotional awareness and expression from EI are converging on optimal adaptation in positive psychology to forge a new synthesis of what constitutes positive mental health. Nonetheless, Bar-On argued that "what is noticeably lacking in (current) discussion to date is a direct examination of the degree to which EI impacts key aspects of positive psychology such as successful performance, happiness and well-being" (p. 55). By summarizing the findings thus far on the degree to which EI is related to positive psychology, Bar-On demonstrated that EI has a "significant impact on successful performance, happiness, well-being and the quest for a more meaningful life" (p. 55).

EI emerged in the mid-1990s, with three models surfacing thus far: the Mayer and Salovey model; the Goleman model; and the Bar-On model. While the Goleman model might be more focused in terms of determining if EI is related to entrepreneurial success, Bar-On (2010) pursued the links between the Bar-On model, which sees EI as leading to effective expression, understanding of others, coping with daily demands and pressures, and positive psychology. The overlap between EI and positive psychology is centered on self-regard, social awareness and empathy, social skills, group identity, impulse control

and self-regulation, good decision making, optimism and hope, self-actualization, and general happiness and subjective well-being (Bar-On, 2010).

To reinforce this overlap, Bar-On (2010) then reviewed empirical studies that demonstrate the impact of EI on human performance. Studies have found a sound relationship between EI and academic performance, and a number of other studies have found a positive correlation between EI and occupational performance. Studies attempting to link EI with happiness have also found a positive correlation. Finally, in linking EI with self-actualization, comparing results of the BarOn EQ-i test and the Personal Orientation Inventory derived from Maslow's self-actualization theory, results of studies have also found that EI positively relates to self-actualization. According to the research, then, there is strong evidence that EI and positive psychology are linked, or overlap, and that EI does indeed strongly contribute to most of the factors deemed necessary for one to have a positive outlook on life and achieve success in work or personal life.

Empirical Findings on Emotional Intelligence

Emotional Intelligence at Work

The sector of the EI research that exhibits the most promise for application to finding a correlation between EI and entrepreneurship is research that has examined the link between EI and work outcomes or performance levels. Among all of the constructs involved in EI, it is necessary to identify which specific traits translate into corporate performance improvement.

Mikolajczak, Roy, Verstryngne, and Luminet (2009) favored the trait EI model as to them it appeared "fertile from both explicative and predictive standpoints" insofar as it

organizes under a single framework “the main individual differences in affectivity, which have been up to now scattered across the basic Big Five dimensions” (p. 700). To further refine this model, Mikolajczak et al. (2009) undertook a study of the relationship between trait EI and stress resistance, that is, the degree to which EI moderates the impact of stress. Some studies have already suggested a connection, as, for example, a study that found less burnout among nurses with higher level trait EI and other studies that found trait EI to be correlated with less mood deterioration and less cortisol secretion.

Mikolajczak et al. (2009) focused particularly on the role of trait EI in influencing two cognitive processes activated in stressful conditions, memory and attention. Because studies have found that people with high trait EI cope better in stressful situations, they expected a similar outcome with regard to memory and attention. The French version of the Petrides and Furnham Trait Emotional Intelligence Questionnaire was utilized along with an abbreviated form of the positive and negative affect schedule in laboratory tests of stressful work situations administered to a population of participants. The results found that only one of the trait EI factors, self-control, “had a moderating impact on memory processes subsequent to mood induction” in that those with high self-control retrieved memories of average positive valence but then switched to retrieving negative memories in stressful situations, meaning that they responded effectively to the stress (Mikolajczak et al., 2009, p. 699). The fact that one element of trait EI appeared to help participants with high EI respond better to stress would appear to suggest the possibility that, insofar as entrepreneurs must deal with stressors, EI would help entrepreneurs as well (Mikolajczak et al., 2009).

Another line of EI research has investigated correlations between EI and particular personality factors related to work. Di Fabio and Palazzeschi (2008), for example, analyzed the correlation between EI and occupational self-efficacy in a sample of Italian teachers. This study was significant with regard to entrepreneurs, as it would follow that self-efficacy is an important characteristic for their survival. The study made use of the BarOn EQ-i and the Ohio State Teacher Efficacy Scale, which were administered to 169 teachers. Previous studies had found that the positive regulation factor of EI is the best predictor of self-efficacy in teachers, “while empathic sensitivity emerges as the best predictor of self-efficacy towards helping others” (Di Fabio & Palazzeschi, 2008, p. 316). Higher self-efficacy generally was related to increased ability by teachers to manage classrooms, motivate students, and use appropriate teaching strategies.

While noting that EI has been linked to increased performance and high productivity in workplace studies, Lam and Kirby (2002) argued that “there has been a general lack of independent, systematic analysis substantiating that claim” (p. 133). For this reason, they investigated the linkage between EI and individual cognitive-based performance using the Multifactor Emotional Intelligence Scale (MEIS), which viewed EI as combining perceiving, understanding, and regulating emotions. They also made use of the Shipley Institute of Living IQ scale to cross-measure the association between general intelligence level and productivity, with 304 undergraduate students as participants. Lam and Kirby found that in fact EI positively correlated with individual cognitive-based performance and does so in a way that cannot be attributed to a person’s general level of intelligence. However, understanding emotions did not correlate with

productivity. This led Lam and Kirby to conclude that specific emotions as opposed to simply understanding emotions per se may be what positively influence productivity. Also, the degree to which one can regulate emotions means that one will be able to choose either the buffering or personal engagement mechanisms to control emotions. Personal engagement in particular has been linked to optimal flow in work, in which emotions are energized and aligned with the task. Lam and Kirby conjectured that persons with EI may be able to use buffering more effectively so that they can then attain a level of personal engagement with their work that leads to productivity. The relevance of these findings to this study is that insofar as personal engagement appears to be an important element of the drive behind entrepreneurial activity, linking EI and productivity through personal engagement would help establish a linkage between EI and entrepreneurship.

Emotional Intelligence and Leadership

Ashkanasy and Dasborough (2003) conducted an empirical study to determine if EI could predict student outcomes in an undergraduate leadership course. EI is discussed in the context of the growing research interest in the role that emotions play in organizational life. Leadership studies have also increasingly found that leaders with high EI are better able to positively influence employee performance, with EI also routinely becoming associated with transformational leadership. To measure the development of these capabilities in students in a leadership class, a 16-item shortened version of the four-branch Mayer and Salovey scale was administered to the class. Then the MSCEIT scale measuring EI was administered online, focusing on the ability-based test, to 144 undergraduate students at an Australian university. The results found that interest in

emotions as well as student interest in their performance in the course affected predicted team performance, “whereas individual performance was related to emotional intelligence” (Ashkanasy & Dasborough, 2003, p. 18).

Parker and Sorensen (2008) also studied the connection between EI and leadership skills. Both the EI construct and transformational compared to transactional leadership styles were reviewed, with strong anecdotal or descriptive evidence for the expectation of an overlap. They administered the BarOn EQ-i and Bass and Avolio’s Multifactor Leadership Questionnaire to 43 managers from a range of disciplines. The study found a strong positive connection between EI and level of transformational leadership combined with some level of transactional leadership. Parker and Sorensen (2008) remarked that the findings support “previous findings in other organizational settings.... and adds to a growing evidence base that shows the significance and validity of concepts and measurement of EI and related leadership styles” (p. 140).

Wang and Huang (2009) explored further the linkage between transformational leadership and EI by pointing out that up to now most leadership studies have focused on individual and not group outcomes and have paid too little attention to the question of why some leaders engage in transformational leadership and others do not. That is, the antecedents of transformational leadership have been understudied. As far back as the beginning of EI studies, Goleman had argued that EI is the best predictor of future leaders, as to be a leader requires the ability to self-manage and self-motivate but also to be empathetic and have social skills. Insofar as transformational leadership is enacted through idealized influence through emotions on followers, it would follow that this connection would make theoretical sense. However, whether or not EI can help a leader

improve group cohesiveness, team performance, and organizational effectiveness is another matter. With regard to the research on the link between EI and transformational leadership, a number of researchers have found the components of EI to be “highly consistent with transformational leadership behavior” (Wang & Huang, 2009, p. 384).

Case Studies of the Correlation of Self-Directed Learning, Emotional Intelligence and Small Business Entrepreneurial Success

While the literature on self-directed learning and EI, by strongly suggesting the advantages of both in terms of workplace success and leadership, clearly point to links among self-directed learning, EI, and entrepreneurial success, studies designed to directly examine the relationship among self-directed learning, EI, and entrepreneurship are few. Yurtsever (2003) examined the degree to which certain personality factors influenced the formation and behavior of a particular class of entrepreneurs, moral entrepreneurs, whose goal in opening a business or embarking on an enterprise is to change the way people live. Moral entrepreneurs “take advantage of the needs of the time to transform the public’s attitudes toward specific issues” (Yurtsever, 2003, p. 1). Previous studies have suggested that certain moral characteristics of the moral entrepreneur’s personality may cause them to undertake such missions, but little has been done to empirically define the particular component dimensions of the moral entrepreneur’s personality. Various personality traits explored by Yurtsever in constructing a model of the moral entrepreneur personality include the ability to anticipate moral threats, the ability to create public awareness and mobilize people to respond to moral threats, and the ability to stand up against and continue to strive for success against resistance, which includes both physical and intellectual capacities and the ability to mobilize power. Though indirectly addressed,

it would make sense that the ability to anticipate and formulate a plan of action against a perceived moral threat would appear to necessitate self-directed learning and that the ability to mobilize support and power and respond to resistance would appear to demand a measure of emotional self-regulation, as both relate to activism. Such a study would offer some insight into the leadership capacities of activist entrepreneurs.

To determine the validity of this outline of personality traits, Yurtsever (2003) surveyed three classes of business administration students at a private university in Turkey as well as others, using a moral entrepreneur scale based on the aforementioned factors. The questions were phrased with regard to identifying persons in the organizations employing the students who had the most of the named qualities and were most likely to become moral entrepreneurs. These factors were then contrasted with Machiavellianism, defined as cool detachment and lack of concern for others, and locus of control, or whether or not a person offers an internal or external reason for success or failure. More importantly, the model was also compared to the construct of EI, or, as noted often, the ability to monitor and control one's own emotions. EI was deemed an important possible element of the moral entrepreneur model because "individuals who have a degree of emotional intelligence move others in the direction they desire" (Yurtsever, 2003, p. 7). Persons with EI also "have a deep understanding of the value of society and individuals" and "can lead people toward a specific attitude about or stance on, a social issue" (Yurtsever, 2003, p. 7). Again going back to Goleman's construction of the EI model, it is then strongly suggested that EI level could be associated with whether one becomes a moral entrepreneur or an entrepreneur with a moral mission. In the study, then, EI was measured by using the Schutte EI scale, a 33-item scale originally

developed by Salovey and Mayer. Social desirability was also measured using the Marlowe-Crowne Social Desirability Scale. The results found that the scale of moral entrepreneurship correlated positively with moral emotions and locus of control but correlated negatively with Machiavellianism. The moral entrepreneur scale was also shown to “correlate positively with emotional intelligence” (Yurtsever, 2003, p. 1). Thus, while a moral entrepreneur is only a subcategory of entrepreneurship (a typical example possibly being any entrepreneur starting up a ‘green’ business), and in some cases may even be only metaphorically an entrepreneur (insofar as he or she starts up a nonprofit organization to mobilize public support for a political issue), it is also true, as noted above, that many entrepreneurs enter into their own businesses with an idealized mindset bent on changing the world. That this study found that a model of the typical moral entrepreneur’s mindset and ways of working correlate positively with EI is significant. While a number of researchers on leadership have inferred further relevance with regard to entrepreneurs, this study established empirically a direct correlation between EI and the likelihood of one being a certain kind of entrepreneur and being successful at it.

Blume and Covin (2009) examined in detail the often axiomatic claim that entrepreneurs are more likely to make decisions based on their intuitions. Intuition has become a topic of increased scrutiny in entrepreneurial studies given that so many entrepreneurs claim to act on them. Thus, intuitions have come to be defined as thoughts that originate beyond conscious thought, include holistic associations, and result in affectively charged judgments, with one group of researchers defining intuition as “a non-sequential information processing mode, which comprises both cognitive and

affective elements and results in direct knowing without any use of conscious reasoning” (Blume & Covin, 2009, p. 2).

The literature includes both support for and criticism of intuition but has also indicated circumstances in which, for example, an entrepreneur might think it opportune to claim that intuition guided his or her decision making. To study this issue, Blume and Covin (2009) distinguished between entrepreneurs’ attributions of intuitions and their actual use of intuition in making decisions and carrying out projects. This distinction is based on the entrepreneur’s ability to distinguish between a “gut feeling” that is genuine and should be followed and just an emotional response to other influences that should be ignored. They proposed that certain characteristics are required of the entrepreneur to not only have intuitions but also to have the courage to act upon them in the conduct of his or her business. The study examined the degree to which entrepreneurs decide about an intuition based on several factors: their perceived acceptability of the intuition, the perceived success of previous acts based on intuitions, the strength of their own sense of self-efficacy, whether or not they have an overconfidence bias, the degree to which they tolerate ambiguity, and the strength of their intuitive cognitive style, as well as more concrete characteristics such as their previous experience as entrepreneurs and the amount of domain-relevant knowledge they have developed about their businesses, resulting in their ability to develop what are termed expert entrepreneurial schemes, upon which later entrepreneurial intuitions are based. To explore the nature of the degree to which an entrepreneur developed expert entrepreneurial schemas (EES) upon which intuitions are based, Blume and Covin (2009) also felt it necessary to examine the entrepreneur’s metacognitive skills and overall level of EI. The literature on expert

schemes, defined as intuitive actions or processes that experts execute almost as second nature, generally has found that it takes at least 10 years of experience in the field to develop such schemas but that once developed, experienced experts generally are able to make good intuitive decisions. EI is conceptualized in this study as one of the boundary conditions in which intuitions developed and are acted upon by entrepreneurs (Blume & Covin, 2009). Blume and Covin argued that “high EI may be critical to entrepreneur’s effective use of the affectively charged judgments that arise from EES” (p. 1). This is more likely because both intuitions and emotions are believed to arouse “highly similar emotional pathways” (Blume & Covin, 2009, p. 10). Thus, “being able to accurately perceive and manage these emotions could enable entrepreneurs to make effective use of their intuitive feelings throughout the venture founding process” (Blume & Covin, 2009, p. 1). The practical implication of this model for Blume and Covin is that if entrepreneurs want to improve their capacity to discern which intuitions are actionable they should improve their EI, as improved EI can certainly help them think in a more self-directed way in the founding process of starting up a business. Though the overall purpose of their study was to establish an explanatory theoretical model for how entrepreneurs think and act in the process of running a small business, focusing on the often acclaimed ability to act on intuition, it places EI squarely in the center of the arsenal of emotional strengths that contribute to entrepreneurial success.

Conclusion

This review examined the extent to which self-directed learning and EI correlated to lead to success among entrepreneurs. The review examined the construct of the entrepreneur and the various ideas that are said to differentiate the entrepreneur from a

less independently minded person (Baycan-Levent & Kundak, 2009; Block & Koellinger, 2009; Ley, 2006; Macko & Tyszka, 2009; MacPherson, 2009; Mandelman & Rojas, 2007; Nguyen & Nguyen, 2008). The various reasons why persons enter into entrepreneurial working lives were also explored. A model or profile of the entrepreneurial mind has begun to emerge in the literature, but it continues to be in need of further refinement. To that end, this study sought to determine the degree to which self-directed learning capacities correlated with being an entrepreneur and also whether or not EI correlated with being a successful entrepreneur (Boyle, 2005; Bumpus & Burton, 2008; Fenwick, 2001; Lobler, 2006; Rae, 2006).

At present, only inferential evidence exists, however strong, that the typical strengths of the entrepreneur as outlined in the literature would require self-directed learning or EI. Thus, the construct of entrepreneurial learning appears to incorporate within it many of the tenets of self-directed learning (insofar as self-directed learning has also been theorized with the help of social constructivist learning styles and other more ecological pedagogical theories). Also, the construct of entrepreneurship as it has emerged in the literature would seem to mandate a certain level of self-knowledge, self-confidence, self-efficacy, and leadership skills, all of which overlap with elements of the construct of EI. EI as a concept has a complicated history, and the research into EI is still concerned with testing the discriminant, predictive, and convergent validity of the various scales invented by different researchers to measure EI (Abraham, 2004; Akerjordet & Severinsson, 2009; Alsmadi & Alsmadi, 2005; Ashkanasy & Dasborough, 2003; Barbuto & Burbach, 2006; Bar-On, 2010; Butler & Chinowsky, 2006; Carmeli & Josman, 2006; Carrick, 2010; Di Fabio & Palazzeschi, 2008; Grewal & Salovey, 2005; Grubb &

McDaniel, 2007; Lam & Kirby, 2002; Murphy & Janeke, 2003; Oginska-Bulik, 2005; Parker & Sorensen, 2008; Parthasarathy, 2009; Petrides, 2010; Salami, 2010; Tok & Morali, 2009; Wang & Huang, 2009). By and large, the literature on EI remains split between those who favor a trait EI conceptualization of EI and those who prefer an ability conceptualization of EI. While a good deal of research has been done to validate measures of EI, an equally robust literature has emerged concerning the degree to which EI overlaps with personality studies and with positive psychology. This line of research brings into the EI construct's range a number of personality factors that are firmly lodged in the development of the entrepreneurial model. Moreover, a good deal of research has found that EI contributes to improved productivity at work, and other studies have provided increasingly favorable findings linking EI with transformational leadership. As both of these elements would appear to be prerequisites of entrepreneurial success, strong inferential evidence emerges that EI should characterize the successful entrepreneur. That stated, at present there are very few empirical studies that have directly applied the construct of EI to entrepreneurial profiles or situations. One study, however, did directly find that EI contributed in a significant way to the success of a so-called moral entrepreneur, or an entrepreneur who had started a business for morally uplifting reasons (Blume & Covin, 2009; Yurtsever, 2003).

CHAPTER III

METHODOLOGY

The purpose of this study is to explore and describe the EI and SDLR of successful entrepreneurs in Southeast Kentucky and examine possible relationships between these factors. It has been assumed that research exploring the factors that are associated with successful entrepreneurs in Southeast Kentucky is limited.

This study investigates whether two specific, measurable characteristics—an entrepreneur's readiness to be a self-directed learner and an entrepreneur's EI as measured by the BarOn EQ-i test—are related to entrepreneurial success. SDLR is a predictive characteristic (Guglielmino, 1977) and may explain an individual's ability to succeed as an entrepreneur. The BarOn EQ-i measures interpersonal skill, intrapersonal skills, adaptability, stress management, and general moods. It relates to potential for performance rather than performance itself and defines success as the end product of that which one strives to achieve and accomplish.

The online BarOn EQ-i survey and the Learning Preference Assessment were used in this study. This study also provides a demographic description of successful entrepreneurs in Southeast Kentucky. A short demographic survey (Appendix A) was included in the cover letter of this study.

The Literature

The literature reviewed in Chapter II provides sufficient support that in some instances and under some circumstances, EI and/or SDLR can predict and explain a positive effect on each of the research variables. The variables used are five years of successful entrepreneurial ownership of a firm and income. The research presented in the preceding chapter supports the hypotheses of this study.

Research Hypotheses

First Hypothesis: Entrepreneurial success will be positively associated with an individual's EI.

Second Hypothesis: Entrepreneurial success will be positively associated with an individual's SDLR.

Third Hypothesis: EI and self-directed learning will be positively associated.

Participants

The participants of this study were entrepreneurs in Southeast Kentucky. Specific counties studied include Pulaski, Casey, and Russell counties. The entrepreneurs were randomly selected from area Yellow Pages phone books. Those who responded to two elective surveys comprised the study sample. Small business owners in the legal and medical fields were exempt from this study due to the large number of years of formal training and preparedness required to enter into these ventures. Each participant was asked to complete an electronic version of the BarOn EQ-i and a paper-and-pencil Self-Directed Learning Readiness Scale (SDLRS) assessments. Participants also completed a paper-and-pencil brief demographic survey.

Instrumentation for BarOn EQ-i Test

The BarOn EQ-i test was selected as a method to obtain the EI scores because it breaks down the scores into five areas and 15 sub-areas. The EQ-i relates to the potential for performance, and not the performance itself, and provides other measures by which to determine the validity of the individual scores. These measures include a positive impression (PI) scale, a negative impression (NI) scale, and an inconsistency index (II). The PI scale was designed to detect dissimulation or the feigning of enhanced emotional functioning. When these scores are elevated, the respondent may have consciously attempted to give a positive impression or engage in self-deception. Sometimes a high PI score could also mean a need for social conformity, approval, self-protection, or avoidance of criticism (Bar-On, 1997). There were 133 statements. Using a Likert response scale, participants were asked to answer each question, with 1=very seldom or not true of me; 2=seldom true of me; 3=sometimes true of me; 4=often true of me; and 5=very often true of me. Again, there are only five possible responses to each statement. A high score indicates that a person is self-confident, self-aware, and able to handle difficult emotional experiences.

Participants were randomly selected from area Yellow Pages phone books. The participants were requested to complete the study using a research Web site developed for this study. In addition, approximately 250 e-mail messages were sent as a follow-up to encourage participation. Similar to an IQ score, the average Emotional Quotient scaled score is 100, with a standard deviation of 15. These statistics are based on more than 5,000 respondents in Bar-On's research.

Instrumentation for Self-Directed Learning Readiness Scale

The criteria used to select the instrumentation for measuring SDLR were as follows: (a) a reliable, valid, and comprehensive instrument for diagnostic purposes and (b) an instrument that measures characteristics that are common to self-directed learning. The instrument chosen for this portion of the study was the SDLRS, also called the Learning Preference Assessment. It is a 58-item Likert-type scale designed to assess the degree to which individuals perceive themselves to possess the skills and attitudes frequently associated with self-directed learning. Higher scores indicate more self-directed learning readiness; lower scores indicate less self-directed learning readiness. The vendor of the SDLRS instrument recommends that scores be interpreted according to the following categories: 58–176, “low”; 177–201, “below average”; 202–226, “average”; 227–251, “above average”; and 252–290, “high ” (Gugliemino & Klatt, 1994).

The SDLRS instrument gives respondents five possible answer choices: (a) Almost always true; (b) Usually true; (c) Sometimes true; (d) Not often true; and (e) Almost never true. Forty-one of the questions are positively phrased, and 17 are negatively phrased. The instrument measures the attitudes, values, and abilities of learners relating to their readiness to engage in self-directed learning at the time of response.

Validity of Research Methods

Developed in 1977, the SDLRS was designed as a paper-and-pencil instrument. By 1989, seventeen various studies, which had specifically examined the validity of the SDLRS, and meta-analysis of 29 studies all revealed positive associations with self-

directed learning activity, autonomy, and growth orientation (Guglielmino, 1977). Also, based on the documented validation by Bar-On (1997) and the long period of time in which the instrument has been applied, the BarOn EQ-i was chosen for this research effort.

Research Questions

This study examines the following research questions:

1. Do entrepreneurs in Southeast Kentucky have a higher self-directed learning readiness than other average adults as assessed by the Self-Directed Learning Readiness Scale (SDLRS)?
2. Is there a relationship between self-directed learning readiness and an entrepreneur's income and years of business experience?
3. Is there a relationship among an entrepreneur's age, gender, educational level, and self-directed learning readiness?

Research Design

This study used a correlation research design. Bivariate and multivariate statistics were chosen to test the explanatory power of SDLR, and the BarOn EQ-i was to be used to explore relationships between variables. Because this study was designed to test hypothesized relationships, the resulting correlation coefficients were interpreted in terms of their statistical significance.

Null Hypotheses

Ho-1: There will be no significant relationship between entrepreneurs' scores on the SDLRS and entrepreneurial success (measured by income).

Ho-2: There will be no significant relationship between entrepreneurs' scores on the SDLRS and entrepreneurial success (measured by years in business).

Ho-3: There will be no significant relationship between entrepreneurs' emotional intelligence scores and entrepreneurial success (measured by income).

Ho-4: There will be no significant relationship between entrepreneurs' emotional intelligence scores and entrepreneurial success (measured by years).

Ho-5: There will be no significant relationship between entrepreneurs' emotional intelligence and entrepreneurs' self-directed learning readiness.

All hypotheses were tested at a significance level of $\alpha = .05$.

Procedure and Data Collection

Prior to the beginning of the data collection process that comprised this study, approval was received for the concept of the study from the Mississippi State University dissertation committee. After receiving approval from the dissertation committee to proceed with the proposed research, a submission was made and approval was received from the Institutional Review Board (IRB) for the Protection of Human Subjects in Research of Mississippi State University to conduct the study (Appendix B).

With the approval of the dissertation committee, and the Mississippi State University IRB Administrator, data were obtained from entrepreneurs (small business owners) in Southeast Kentucky. Entrepreneurs were asked to voluntarily respond to three different instruments: the SDLRS (Guglielmino, 1977), the BarOn EQ-i test, and a brief demographic survey.

Because the name of the SDLRS identifies the function of the instrument, it was referred to as a Learning Preference Poll for the purpose, and portion, of this study.

Renaming the instrument was done to mitigate the tendency of respondents to respond with what is thought to be the desired response.

The second instrument, the BarOn EQ-i test, was to be administered on the Internet. Instrument administration involved multiple steps:

4. Working with MHS, Inc., to secure a Web page location for the BarOn EQ-i test
5. Dissemination of an introductory postcard and e-mail message to 250 entrepreneurs in Southeast Kentucky; these small business owners were identified using area Yellow Pages phone books.
6. Dissemination of a subsequent postcard thanking them for their participation
7. Repetition of steps 1 through 3 for the administration of the SDLRS
8. There was no time limit for the SDLRS questionnaire. Participants were asked to read each choice carefully but not to spend too much time on any one item.

Anticipating the likelihood of a poor response to a voluntary self-report instrument, the surveys were administered to the entrepreneurs in three counties in Southeast Kentucky. One follow-up contact was made due to the perceived impact that such interruptions have on an entrepreneur's business and sense of privacy.

Once the data from both instruments were retrieved from the subjects and the server, the data were tabulated. Each data set was screened, and random codes were generated to serve as case identifications. Final data analysis was completed using IBM SPSS.

Summary

The problem investigated in this study was whether SDLR and EI were associated with entrepreneurial success as measured by years in business and level of income. The literature reviewed in Chapter II provides some evidence that SDLR and EI can explain a positive effect on personal, managerial, and entrepreneurial success.

The participants of this study were entrepreneurs in Southeast Kentucky. Specifically, respondents doing business in Pulaski, Casey, and Russell counties were studied. The study instruments were the SDLRS, the BarOn EQ-i test, and a brief demographic survey.

Administration occurred using mail, e-mail, and the Internet. The study sample was those entrepreneurs who voluntarily responded to the instruments. Survey data and demographic data were matched using an initial code. The resulting analysis was based on a correlational research design in which regression and bivariate statistics were used to test the explanatory power of EI and SDLR.

CHAPTER IV

RESULTS

This study investigated the possible association between self-directed learning and EI on entrepreneurial success in a Southeast Kentucky group consisting of independent small business owners. Professional business owners such as medical doctors, dentists, and attorneys were not invited to participate in this study because their higher education licensing requirements could possibly have skewed the results of the study. It also examined the relationships of age, gender, annual salaries, years of college education, and years of business experience on entrepreneurial success. The following results of this research are presented in this chapter: results of data analysis, response summary, demographics of entrepreneurs in Southeast Kentucky, entrepreneurs' self-directed learning scores, and results from correlational and multiple regression analysis.

Results of Data Analysis

Response Summary

The 250 entrepreneurs randomly selected from a stratified sample of business owners in Southeast Kentucky, who were invited to volunteer and participate in this study, were sent one advance letter and a reminder postcard from the researcher encouraging them to participate in the study. More than 100 entrepreneurs who had not responded by the fourth week were called personally by the researcher and encouraged to

participate. The entrepreneurs who had not responded by the seventh week of the study were sent a postcard reminding them to participate. Of the 250 entrepreneurs who were invited to participate in this study, 104 responded by completing and returning the Self-Directed Learning Readiness Survey instrument (SDLRS) and the demographic questionnaire (these instruments were submitted to the participants at the same time and were stapled together before being distributed to participants). The SDLRS instrument response and the demographic questionnaire response rate was 41%. Due to online computer password problems, and the vendor switching out EQ-i instruments, respondents were unable to complete the EQ-i portion of this study.

Demographics of Entrepreneurs in Southeast Kentucky

Of the 104 respondents completing the demographic questionnaire, 26 respondents were female and 78 were male. Frequency analysis also showed that 27 respondents reported no college education, 14 reported completing an associate's degree, 55 reported a bachelor's degree, and 8 reported a master's degree or higher. The demographic survey included a question that asked participants for their highest level of education. These answers were coded as values of 1, 2, or 3. A score of one (1) signified associate's degree or lower, two (2) indicated a bachelor's degree, and three (3) indicated a master's degree or above. Education demographics of the 104 entrepreneurs who responded to the demographic questionnaire are reported in Table 2.

Table 2

Educational Attainment of Participants

Degree	Frequency (N)	Percent (%)
No College Education	27	26.0
Associate's Degree	14	13.5
Bachelor's Degree	55	52.9
Master's Degree	8	7.6
Total	104	100.0

All of the 104 respondents in this study were at least 41 years of age. The oldest participant was 80 years old. The mean age for the respondents was 55.44 years.

Respondents' years of entrepreneurial experience were reported in a range from 2 years to 60 years. The mean for years of experience was 23.41 years. SDLRS scores ranged from 206 to 284. The mean SDLRS score was 239.63, which, according to the vendor, would fall in the "above average" category. Table 3 provides descriptive statistics for SDLRS scores, experience, and age of the participating entrepreneurs.

Table 3

Descriptive Statistics for Respondents' SDLRS Scores, Experience, Age, and Income

	N	Minimum	Maximum	Mean	SD
SDLRS	104	206	284	239.63	18.71
Experience	104	2	60	23.41	11.13
Age	104	41	80	55.44	5.97
Income	104	\$15,000	\$185,000	\$54,302.88	\$32,801.51

The kurtosis is a bit high on the respondent's age. Table 4 shows kurtosis and skewness for SDLRS, experience, age, and income. Also, there were two peaks at ages 51 and 59, which resulted in the high kurtosis for age. The kurtosis for age was 3.6.

For income, the kurtosis is over 3, meaning that more people than normal tend to have similar incomes around the middle. The bell curve for income has a sharp peak in its shape. Again, this is illustrated in the high 3.8 kurtosis for income. Skewness for income shows positive skew.

Table 4

Skewness and Kurtosis for SDLRS Scores, Experience, Age, and Income

	<i>N</i>	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
SDLRS	104	.883	.237	-.187	.469
Experience	104	.022	.237	.058	.469
Age	104	1.048	.237	3.588	.469
Income	104	1.831	.237	3.800	.469
Valid <i>N</i> (listwise)	104				

Research Questions

Three questions were chosen for the purpose of this study. The research questions are as follows:

Research Question #1

Do entrepreneurs in Southeast Kentucky have a higher self-directed learning readiness than other average adults as assessed by the Self-Directed Learning Readiness Scale (SDLRS)?

Results for Research Question #1. The mean SDLRS score for all 104 entrepreneurs was 239.63. The minimum SDLRS score was 206, and the maximum SDLRS score was 284. The mean score of 239.63 is in the 82nd percentile compared with other adults. The mean score of 239.63 is in the “above average” range. So, the entrepreneurs do appear to have higher SDLRS scores than other adults.

Research Question #2

Is there a relationship between self-directed learning readiness and an entrepreneur’s income and years of business experience?

Results for Research Question #2. The minimum income reported was \$15,000. The maximum income reported was \$185,000. The mean income was \$54,302. The kurtosis is over 3, meaning that more people than normal tend to have incomes around the middle. This bell curve is therefore peaked in shape and is positively skewed.

The Pearson correlation coefficient for entrepreneur’s income and SDLRS was $r = .788$. This is a very large positive correlation. This was one of the primary correlational findings in this study.

The Pearson correlation coefficient for entrepreneur’s years of business experience and SDLR was $r = .296$. A moderate-size positive correlation of SDLRS and years of experience exists. Less experience tends to go with lower SDLRS scores. This is a statistically significant relationship. Both income and years’ experience remain significant. Income came out much stronger on the Beta weight, consistent with it being much higher in bivariate correlation. These results are noted in Table 5. Based on these

results, there is a relationship between self-directed learning readiness scores and both income and years of experience for these entrepreneurs.

Table 5

Correlations for SDLRS, Experience, Sex, Age, Degree, and Income

Variable	(1)	(2)	(3)	(4)	(5)	(6)
SDLRS (1)	—					
Experience (2)	.296**	—				
Sex (3)	.397**	.043	—			
Age (4)	.031	.434**	.013	—		
Degree (5)	.510*	.085	.046	.001	—	
Income (6)	.788**	.259**	.263**	.023	.297**	—

Notes: $N = 104$; * $p < .05$; ** $p < .01$

Research Question #3

Is there a relationship among an entrepreneur’s age, gender, educational level, and self-directed learning readiness?

Results for Research Question #3. The Pearson correlation coefficient for entrepreneur’s age and SDLR was $r = .031$. There is no correlation of SDLR with age. Age was already problematic due to the fairly high kurtosis and bimodal distribution. This finding is especially interesting because age was moderately correlated with experience and experience was correlated with SDLR.

There is a moderate- to large-size positive correlation of SDLR with gender (sex). The Pearson correlation coefficient for entrepreneur’s gender and SDLR was $r = .397$. Because gender was dummy-coded with male=1 and female=0, this means that men tend to score higher on the SDLRS. Gender is statistically significantly related to SDLRS scores. These results are noted in Table 5.

There is a large positive correlation of education level with SDLRS scores. The Pearson correlation coefficient is $r = .510$. Those with higher education levels are associated with higher SDLRS scores, and those with lower education levels tend to have lower SDLRS scores. Education level is a statistically significant correlate of SDLRS scores. These results are noted in Table 5.

In the multiple linear regression of SDLRS scores, all variables, except age, were statistically significant predictors. Results are noted in Tables 6 and 7.

Adjusted R -squared, the coefficient of determination, shows that 68.4% of the variance is explained by income, experience, sex, and education (degree). This result is noted in Table 8.

Table 6

ANOVA Results for SDLRS

ANOVA ^a						
Model		Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Prob. (> <i>F</i>)
1	Regression	25091.768	4	6272.942	56.712	<.001 ^b
	Residual	10950.348	99	110.610		
	Total	36042.115	103			

a. Dependent Variable: SDLRS

b. Predictors: (Constant), Income, Experience, Sex, Degree

Table 7

Coefficients for Predictors

Coefficients^a						
Model		Unstandardized		Standardized	t	Prob.
		Coefficients	Std. Error	Coefficients		
		B		Beta		
	(Constant)	203.809	3.242		62.862	<.001
1	Experience	.205	.097	.122	2.112	.037
	Sex	9.661	2.488	.225	3.883	<.001
	Degree	3.381	1.233	.174	2.742	.007
	Income	.000	.000	.612	9.080	<.001

a. Dependent Variable: SDLRS

Table 8

Explained Variance for Predictors

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.834 ^a	.696	.684	10.517

a. Predictors: (Constant), Income, Experience, Sex, Degree

Summary of Results

This study explored the possible association between SDLR and EI on entrepreneurial success in a Southeast Kentucky group consisting of independent small business owners. Due to technical problems, no data were collected on EI, though that was part of the data collection planned for the study.

This study also examined the relationships of age, gender, annual salaries, years of college education, and years of business experience on an entrepreneur's success.

Correlational analysis revealed a moderate-size positive correlation of SDLRS with years of experience, and it is positive. More experience tends to go with higher

scores; less experience tends to go with lower scores. This is statistically significant ($p = .002$).

Also, a moderate- to large-size positive correlation of SDLRS scores with sex (gender) was discovered. Because sex was dummy-coded with male=1 and female=0, this revealed that men tend to score higher on the SDLRS. This is statistically significant ($p < .001$).

There was no statistically dependable correlation of SDLRS scores with age. Age was already problematic due to the fairly high kurtosis and bimodal distribution. This was especially interesting because age was correlated with experience, and experience was correlated with SDLRS, but age was not correlated with SDLRS.

There is a large positive correlation of educational level with SDLRS scores. Those with higher education are associated with higher SDLRS scores, and those with a lower education level tend to have lower scores. This is statistically significant ($p < .001$).

Lastly, there is a very large correlation between SDLRS scores and income. This was the largest and most prominent correlational discovery of this study.

In the multiple linear regression of SDLRS scores, all variables, except age, were statistically significant predictors. Age was therefore dropped from the model. Income is the strongest predictor, based on the standardized regression coefficient (“beta weights”). This is consistent with it having such a strong bivariate correlation with SDLRS scores. Income is also correlated with the other three variables, but the multiple regression also includes the other three variables of sex, degree, and experience. Thus, it is not merely income’s connection with them; they have some explanatory power of their own. These results are noted in Tables 6 and 7.

Adjusted *R*-square, coefficient of determination, shows that 68.4% of the variance in SDLRS scores is explained by income, experience, sex, and education (degree), which is a substantial amount. This result is noted in Table 8.

CHAPTER V

CONCLUSIONS

This chapter summarizes the study of the possible association between self-directed learning and EI on entrepreneurial success in a Southeast Kentucky group of independent small business owners. Also, descriptive statistics including age, gender, annual salaries, years of college education, and years of business experience were explored. The following areas are discussed: background, methodology, discussion of the results, and recommendations for further research.

Background

A body of research indicates that self-directed learning and EI have a significant effect on entrepreneurial success (Bar-On, 2010; Boyle, 2005; Bumpus & Burton, 2008; Fenwick, 2001; Lobler, 2006; Rae, 2006). However, very few, if any, studies have been conducted to determine the effects of entrepreneurial success in the poorer regions of Southeast Kentucky. Because there are several KCTCS community colleges that serve this poor region through the various KCTCS Workforce Solutions Departments, a need exists for research into the factors for entrepreneurial success in Southeast Kentucky. These community colleges include Hazard Community College, Southeast Community College, Somerset Community College, Ashland Community College, and Big Sandy Community College. The SDLRS may be an instrument that could assist KCTCS Workforce Solutions chiefs and directors at these various community colleges to improve

the growth, and success, of entrepreneurship and small business in Southeast Kentucky, and therefore strengthen these small rural economies.

Methodology

This study investigated the possible association of self-directed learning on entrepreneurial success in a Southeast Kentucky group of independent small business owners. The instrument used was the Learning Preference Assessment. A demographic survey was also used to examine small business owners' income, years of experience, gender, age, and level of education. A higher number means more education, and a lower number means less education. Also for gender, dummy-coding was utilized. Males were dummy-coded with one (1). Females were dummy-coded as zero (0).

The following research questions were examined in the study:

1. Do entrepreneurs in Southeast Kentucky have a higher self-directed learning readiness than other average adults as assessed by the Self-Directed Learning Readiness Scale (SDLRS)?
2. Is there a relationship between self-directed learning readiness and an entrepreneur's income and years of business experience?
3. Is there a relationship among an entrepreneur's age, gender, educational level, and self-directed learning readiness?

Implications

Successful entrepreneurs use their self-directedness to effectively manage themselves, others, and their organizations. The results of this study suggest that self-directedness does have an effect on entrepreneurs' income and success indicating that

self-directedness could help entrepreneurs improve their performance. The ability to be self-directed and to manage one's emotions and the emotions of others has been shown to be an important indicator of entrepreneurial success. Given this indicator, small business development offices and college workforce development departments should examine research-based training programs and help select future entrepreneurs who could benefit from such initiatives. The findings of this research support the existing literature presented in Chapter II. Research has linked self-directedness to improved entrepreneurial achievement.

Summary

Results from this study explored the effects of EI and self-directed learning on entrepreneurial success in Southeast Kentucky. This study indicates that self-directed learning is related to entrepreneurial success in Southeast Kentucky. No data on EI were collected, so the relationship of EI with entrepreneurial success in Southeast Kentucky is still an open question.

Further research should focus on EI and entrepreneurial success. Further research also needs to be conducted to see if a link does exist among self-directed learning, EI, and entrepreneurial success.

Entrepreneurship and small business success are of vital importance to the nation's economy. Entrepreneurship is a vital factor of production in all systems of business. In the current era of global economic stagnation, lower national gross domestic product, high national unemployment, and slow growth, it is imperative that community colleges, and especially college workforce development departments, know that self-directed learning and EI can be important factors in gauging, and maybe even predicting,

entrepreneurial success. This knowledge might help make Southeast Kentucky and the United States more economically viable, and stronger, and give future generations of entrepreneurs more hope in finding, and even creating, high-paying jobs for themselves.

REFERENCES

- Abraham, R. (2004). Emotional competence as antecedent to performance: A contingency framework. *Genetic, Social and General Psychology Monographs, 130*, 117–143.
- Akerjordet, K., & Severinsson, E. (2007). Emotional intelligence: A review of the literature with specific focus on empirical and epistemological perspectives. *Journal of Clinical Nursing, 7*, 1405–1416. doi:10.1111/j.1365-2702.2006.01749.x
- Akerjordet, K., & Severinsson, E. (2009). Emotional intelligence, part 1: The development of scales and psychometric testing. *Nursing and Health Sciences, 11*, 58–63. doi:10.1111/j.15442-2018.2009.00431.x
- Alsmadi, Y. M., & Alsmadi, A.A. (2005). Detecting differential person functioning in emotional intelligence. *Journal of Instructional Psychology, 36*, 284–289.
- Ashkanasy, N. M., & Dasborough, M.T. (2003). Emotional awareness and emotional intelligence in leadership teaching. *Journal of Education for Business, 79*(1), 18–24.
- Bar-On, R. (2004). *Emotional quotient inventory*. Canada: Multi-Health Systems, Inc.
- Bar-On, R. (2010). Emotional intelligence: An integral part of positive psychology. *South African Journal of Psychology, 40*, 54–62.
- Barbuto, J. E., & Burbach, M. E. (2006). The emotional intelligence of transformational leaders: A field study of elected officials. *The Journal of Social Psychology, 146*, 51–64.
- Baycan-Levent, T., & Kundak, S. (2009). Motivation and driving forces of Turkish entrepreneurs in Switzerland. *Innovation, The European Journal of Social Science Research, 22*, 283–308. doi:10.1080/13511510903383710

- Block, J., & Koellinger, P. (2009). I can't get no satisfaction—Necessity entrepreneurship and procedural utility. *Kyklos*, *62*, 191–209.
- Blume, B. D., & Covin, J. G. (2009). Attributions to intuition in the venture founding process: Do entrepreneurs actually use intuition or just say that they do? *Journal of Business Venturing*, *30*, 1–15. Retrieved from http://www.professorblume.com/uploads/1/0/6/9/1069884/blume__covin_2011.pdf
- Boyle, R. A. (2005). Applying learning-styles theory in the workplace: How to maximize learning-styles strengths to improve work performance in law practice. *St. John's Law Review*, *79*, 97–127.
- Bumpus, M. A., & Burton, G. (2008). Chapters in the life of an entrepreneur: A case study. *Journal of Education for Business*, 302–309.
- Butler, C. J., & Chinowsky, P. S. (2006, July). Emotional intelligence and leadership behavior in construction executives. *Journal of Management in Engineering*, 119–127.
- Byrne, J. C., Dominick, P. G., Smither, J. W., & Reilly, R. R. (2007). Examination of the discriminant, convergent and criterion-related validity of self-ratings on the emotional competence inventory. *International Journal of Selection and Assessment*, *15*, 341–355.
- Candy, P. C. (1991). *Self-direction for lifelong learning*. San Francisco, CA: Jossey-Bass Publishers.
- Carmeli, A., & Josman, Z. E. (2006). The relationship among emotional intelligence, task performance and organizational citizenship behaviors. *Human Performance*, *19*, 403–419.
- Carrick, L. A. (2010, November). Demystifying the EI quick fix. *T+D*, 61–66.
- Cohen, A. M., & Brawer, F. B. (2008). *The American community college* (5th ed.). San Francisco, CA: John Wiley & Sons, Inc.
- Constant, A., Shachmurove, Y., & Zimmermann, K. F. (2007). What makes an entrepreneur and does it pay? Native men, Turks and other migrants in Germany. *International Migration*, *45*, 71–102.
- Di Fabio, A., & Palazzeschi, L. (2008). Emotional intelligence and self-efficacy in a sample of Italian high school teachers. *Social Behavior and Personality*, *36*, 315–326.

- Fenwick, T. J. (2001). Work knowing 'on the fly': Enterprise cultures and co-emergency epistemology. *Studies in Continuing Education*, 23, 243–262. doi:10.1080/01580370120101993
- Grewal, D., & Salovey, P. (2005). Feeling smart: The science of emotional intelligence. *American Scientist*, 93, 330–341.
- Grubb, W. L., & McDaniel, M. A. (2007). The fakability of Bar-On's emotional quotient inventory short form: Catch me if you can. *Human Performance*, 20, 43–61.
- Guglielmino, L. M. (1978). Development of the self-directed learning readiness scale. (Doctoral dissertation, University of Georgia, 1977). *Dissertation Abstracts International*, 38, 6467A.
- Guglielmino, P. J., & Klatt, L. A. (1994). Self-directed learning readiness as a characteristic of the entrepreneur. In H. B. Long and Associates, *New ideas about self-directed learning* (pp. 161–174). Norman, OK: Oklahoma Research Center for Continuing Professional and Higher Education of the University of Oklahoma.
- Lam, L. T., & Kirby, S. L. (2002). Is emotional intelligence an advantage? An exploration of the impact of emotional and general intelligence on individual performance. *The Journal of Social Psychology*, 142, 133–144.
- Ley, D. (2006). Explaining variations in business performance among immigrant entrepreneurs in Canada. *Journal of Ethnic and Migration Studies*, 32, 743–784. doi:10.1080/13691830600704123
- Lobler, H. (2006). Learning entrepreneurship from a constructivist perspective. *Technology Management and Strategic Management*, 18, 19–38. doi:10.1080/09537320500520460
- Macko, A., & Tyszka, T. (2009). Entrepreneurship and risk taking. *Applied Psychology: An International Review*, 58, 469–487. doi:10.1111/j.1464-0597.2009.00402.x
- MacPherson, M. (2009, July). Entrepreneurial learning: Secret ingredients for business success. *T+D*, 47–55.
- Mandelman, F. S., & Rojas, G. V. M. (2007). Microentrepreneurship and the business cycle: Is self-employment a desired outcome? *Federal Reserve Bank of Manhattan, Working Paper Series*, 1–41.
- Martinez, D., Mora, J. G., & Vila, L. E. (2007). Entrepreneurs, the self-employed and employees amongst young European higher education graduates. *European Journal of Education*, 42, 99–119.

- Mikolajczak, M., Roy, E., Verstrynge, V., & Luminet, O. (2009). An exploration of the moderating effect of trait emotional intelligence on memory and attention in neutral and stressful conditions. *British Journal of Psychology*, *100*, 699–715. doi:10.1348/000712608X395522
- Murphy, A., & Janeke, H. C. (2003). The relationship between thinking styles and emotional intelligence: An exploratory study. *South African Journal of Psychology*, *39*, 357–375.
- Nguyen, H. H. D., & Nguyen, N. T. (2008). Examining personal values and entrepreneurial motives of Vietnamese entrepreneurs in the 21st century: Two empirical studies. *African and Asian Studies*, *7*, 141–171. doi:10.1163/156921008X318709
- Oginska-Bulik, N. (2005). Emotional intelligence in the workplace: Exploring its effects on occupational stress and health outcomes in human service workers. *International Journal of Occupational Medicine and Environmental Health*, *18*, 167–175.
- Parker, P. A., & Sorensen, J. (2008). Emotional intelligence and leadership skills among NHS managers: An empirical investigation. *The International Journal of Clinical Leadership*, *16*, 137–142.
- Parthasarathy, R. (2009). Emotional intelligence and the quality manager: Beauty and the beast? *The Journal for Quality and Participation*, *31*(4), 32–35.
- Petrides, K. V. (2010). An application of belief-importance theory with reference to the Big Five and trait emotional intelligence. *Social Behavior and Personality*, *38*, 697–710. doi:10.2224/sbp.2010.38.5.697
- Petrides, K. V., Pita, R., & Kokkinaki, F. (2007). The location of trait emotional intelligence in personality factor space. *British Journal of Psychology*, *98*, 273–289. doi:10.1348/000712606X120618
- Rae, D. (2006). Entrepreneurial learning: A conceptual framework for technology-based enterprise. *Technology Analysis and Strategic Management*, *18*, 39–56. doi:10.1080/09537320500520494
- Raffo, C., O'Connor, J., Lovatt, A., & Banks, M. (2000). Attitudes to formal business training and learning amongst entrepreneurs in the cultural industries: Situated business learning through 'doing with others.' *Journal of Education and Work*, *13*, 216.

- Salami, S. O. (2010). Conflict resolution strategies and organizational citizenship behavior: The moderating role of trait emotional intelligence. *Social Behavior and Personality*, 38, 75–86. doi:10.2224/sbp.2010.38.1.75
- Tok, S., & Morali, S. L. (2009). Trait emotional intelligence, the Big Five personality dimensions and academic success in physical education teacher candidates. *Social Behavior and Personality*, 37, 921–932. doi:10.1224/sbp.2009.37.7.921
- Wang, Y. S., & Huang, T. C. (2009). The relationship of transformational leadership with group cohesiveness and emotional intelligence. *Social Behavior and Personality*, 37, 379–392. doi:10.2224.sbp.2009.37.3.379
- Yurtsever, G. (2003). Measuring the moral entrepreneurial personality. *Social Behavior and Personality*, 31, 1–12.

APPENDIX A
DEMOGRAPHIC SURVEY

Demographic Survey:

(Please return your answers w/your SDLRS answers and please use the pre-addressed and stamped envelope provided)

- 1.) What is your gender? What is your age?
- 2.) How many years of experience do you have in owning your own business?
- 3.) What is your approximate annual income from your small business?
- 4.) What is your highest level of education?

APPENDIX B
MISSISSIPPI STATE UNIVERSITY INSTITUTIONAL
REVIEW BOARD APPROVAL

Mississippi State University
Informed Consent Form for Participation in Research

Title of Research Study: Correlational study on Self-Directed Learning, Emotional Intelligence, and Entrepreneurship.

Study Site: Southeast Kentucky

Researcher: Frank Carothers, PhD. Student, Mississippi State University

Purpose

The purpose of this research is to explore the possible relationship(s) between Self-Directed Learning, Emotional Intelligence, and Entrepreneurial Success.

Procedures

If you participate in this study, you will be asked to complete a survey about Self-Directed Learning, Emotional Intelligence, and Entrepreneurial Success. The surveys will take approximately 30 minutes to complete. The surveys will include questions related to one's motivation, interests, business successes, and learning experiences.

The Self-Directed Learning survey, and the short demographic survey, are stapled together. Please answer each question.

There is no time limit for the questionnaires. Try not to spend too much time on any one item. After completion of the aforementioned paper instruments, please mail them back to the researcher using the self-addressed stamped envelope provided. Before mailing the paper instruments back, please remember your printed ID # located at the top right hand corner of both paper instruments. You may choose to write this ID # down for future reference. You will need this ID # as your password to log onto the internet at the following web address: www.mhsassessments.com to finish taking the on-line BarOn EQ-i survey. Once you finish the on-line EQ-i survey, you will have completed your participation in this project. Your time and participation in this study are appreciated.

Risks or Discomforts

The data from these surveys will not require private identification. All answers will remain anonymous. Participants will not be photographed, video-taped, or audio taped.

Incentive to participate

All participants will be volunteers, and there are no monetary rewards to participate.

Confidentiality

Please note that these records will be held by a state entity and therefore are subject to disclosure if required by law. Research information may be shared with the MSU

MSU IRB
Approved: 6/10/11
Expires: / /

Page 1 of 2
Version: 6/10/2011

Institutional Review Board (IRB) and the Office for Human Research Protections (OHRP).

Questions

If you have any questions about this research project, please feel free to contact Frank Carothers at (606) 802-2916

The faculty advisor is Dr. James Davis and he can be reached at (662) 325-9259.

For questions regarding your rights as a research participant, or to express concerns or complaints, please feel free to contact the MSU Regulatory Compliance Office by phone at 662-325-3994, by e-mail at irb@research.msstate.edu, or on the web at <http://orc.msstate.edu/participant/>.

Voluntary Participation

Please understand that your **participation is voluntary**. Your **refusal to participate will involve no penalty or loss** of benefits to which you are otherwise entitled. You **may discontinue your participation** at any time without penalty or loss of benefits.

Please take all the time you need to read through this document and decide whether you would like to participate in this research study. If you decide to participate, completion of the items and return of them indicates your consent to participate.

Please keep this form for your records.

MSU IRB
Approved: 6/10/11
Expires: 1/1/12

Page 2 of 2
Version: 6/10/2011