The Pennsylvania State University

The Graduate School

College of Education

EXPLORING NASCENT ENTREPRENEURIAL LEARNING: A MIXED METHOD STUDY

A Dissertation in Adult Education by Ernie Post

Copyright 2014 Ernie Post

Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

May, 2014
This dissertation of Ernie Post was reviewed and approved * by the following:

Edward W. Taylor  
Associate Professor of Adult Education  
Dissertation Advisor  
Chair of Committee

Robin Redmon Wright  
Assistant Professor of Adult Education

Melody Thompson  
Associate Professor of Adult Education

Robert Russell  
Assistant Professor of Management

Kyle Peck  
Professor of Education  
Director of Graduate Studies

*Signatures are on file in the Graduate School
ABSTRACT

One purpose of this study was to add insight to help Small Business Development Center (SBDC) entrepreneurial educators understand why over 40% of their adult learners discontinue their learning program prematurely. In addition, this study explored how the comprehensive Self-Directed Learning (SDL) model might inform our understanding of attrition amongst nascent entrepreneurial adult learners.

This study utilized a sequential, exploratory, mixed method research design, which involved a mixture of qualitative and quantitative inquiry. The sample of students for both the qualitative and quantitative phase of the study included adult learners who had entered the SBDC entrepreneurial learning program and then discontinued the program before completing their learning goals. Using the qualitative data from 10 in-depth interviews that were conducted in May and June 2011, a quantitative survey was developed. A total of 243 SBDC students completed the survey in August, 2011. The principal component analysis asserts an emerging learning model loading 26 variables to form seven components that explained 74% of the variance. The second set of findings found that a majority of the variables produced significantly higher means for the success group of learners when the means were compared to the non-success group of learners (p < .05). The qualitative data provided new insight concerning the role of mentors in adult education in formal learning settings, and it reinforced the important role of entrepreneurs’ social networks and their emotions. The study ends by considering the implications for practice, theory, and future research.
TABLE OF CONTENTS

LIST OF TABLES .............................................................................................................................. vii
LIST OF FIGURES ............................................................................................................................ viii
ACKNOWLEDGMENTS ..................................................................................................................... ix

CHAPTER 1 ........................................................................................................................................ 1

INTRODUCTION .................................................................................................................................. 1

OVERVIEW OF SMALL BUSINESS SUPPORT PROGRAMS ............................................................ 2
KUTZTOWN UNIVERSITY SMALL BUSINESS DEVELOPMENT CENTER ........................................ 3
PROBLEM STATEMENT ......................................................................................................................... 5
PURPOSE STATEMENT ......................................................................................................................... 7
RESEARCH QUESTIONS ...................................................................................................................... 7
THEORETICAL FRAMEWORK ............................................................................................................ 8
ENTREPRENEURSHIP AS A DISCIPLINE ...................................................................................... 11
ENTREPRENEURIAL LEARNING THEORY .................................................................................. 13
ENTREPRENEURIAL DISCONTINUANCE ..................................................................................... 14
OVERVIEW OF RESEARCH DESIGN AND METHODOLOGY ...................................................... 15

SIGNIFICANCE ................................................................................................................................. 17
DEFINITIONS .................................................................................................................................... 20
ASSUMPTIONS OF THE STUDY ....................................................................................................... 21
SUMMARY ......................................................................................................................................... 21

CHAPTER 2 ........................................................................................................................................ 23

LITERATURE REVIEW ....................................................................................................................... 23

SELF-DIRECTED LEARNING THEORY ............................................................................................... 24
Self-Directed Learning Foundational Concepts ................................................................................. 25
Self-Directed Learner Motivational Dimensions ............................................................................. 29
Social Context .................................................................................................................................. 33
Personal Autonomy .......................................................................................................................... 35
Self-Management ........................................................................................................................... 39
Learner Control of Instruction ........................................................................................................ 42
Power ................................................................................................................................................ 43

SELF-DIRECTED COMPREHENSIVE LEARNING MODEL .............................................................. 46
Self-Management ........................................................................................................................... 48
Self-Monitoring ............................................................................................................................... 49
Motivation ......................................................................................................................................... 50
ENTREPRENEURSHIP ....................................................................................................................... 54
Competing Perspectives About Entrepreneurship and Entrepreneurial Learning ................................ 56
Nascent Entrepreneurial Learning Empirical Studies ..................................................................... 72
Intersection of Entrepreneurship and Self-Directed Learning Framework .................................... 80

ADULT LEARNING PARTICIPATION, ATTRITION AND DISCONTINUANCE ........................................ 81
Foundational Literature About Participation in Adult Learning .................................................... 82

CHAPTER 3 ........................................................................................................................................ 89

METHODOLOGY ............................................................................................................................. 89

MIXED METHOD RESEARCH PARADIGM ...................................................................................... 90
MIXED METHOD DESIGN TYPES .................................................................................................... 92
BACKGROUND OF THE RESEARCHER .......................................................................................... 95
PARTICIPANT SELECTION ................................................................................................................ 97
Qualitative biographical sketches ................................................................................................... 98
Quantitative recruitment ................................................................................................................ 103
DATA COLLECTION, SURVEY DEVELOPMENT AND DATA ANALYSIS ..................................... 103
Interviewing Approach .................................................................................................................. 104
Survey Instrument Development .................................................................................................................. 105
QUANTITATIVE DATA ANALYSIS ............................................................................................................. 107
Principal Component Analysis .................................................................................................................... 107
Independent Means t-test ............................................................................................................................ 110
Chi-square Test Statistic ............................................................................................................................... 111
Data Integration ............................................................................................................................................ 111
VERIFICATION STRATEGIES ..................................................................................................................... 111
Qualitative Verification ................................................................................................................................. 112
Credibility .................................................................................................................................................... 113
Quantitative Verification Strategies ........................................................................................................... 113
Strengths ....................................................................................................................................................... 116
Limitations ................................................................................................................................................... 116
RESEARCH ETHICS AND COMPLIANCE .................................................................................................... 117

CHAPTER 4 ................................................................................................................................................. 118
QUALITATIVE ............................................................................................................................................. 118
ENTREPRENEURSHIP AND MOTIVATION .............................................................................................. 120
Entrepreneurs’ Need for Independence, Creativity, and Commitment ....................................................... 122
Entrepreneurs’ Motivational Factors Affecting SBDC Learning Participation ........................................... 124
Entrepreneurs’ Family Role on Motivation ............................................................................................... 131
ENTREPRENEURS’ AFFECTIVE EXPERIENCES ...................................................................................... 137
Entrepreneurs’ Negative Emotions ............................................................................................................ 137
Entrepreneurs’ Positive Emotions .............................................................................................................. 141
ENTREPRENEURS’ OBSTACLES PREVENTING SBDC LEARNING PROGRAM COMPLETION ............ 142
Entrepreneurs’ Lack of Financial Resources ............................................................................................. 142
Entrepreneurs’ Lack of Knowledge about SBDC Learning Resources ....................................................... 145
Entrepreneurs’ Lack of Time and Scheduling Conflicts ........................................................................... 148
ENTREPRENEURS’ PERCEPTIONS OF THE SBDC LEARNING PROGRAM ......................................... 150
Perceptions about the SBDC Learning Program ......................................................................................... 151
Learners’ Recommendations ................................................................................................................... 158
SUMMARY ................................................................................................................................................. 160

CHAPTER 5 ................................................................................................................................................. 162
QUANTITATIVE ........................................................................................................................................... 162
PARTICIPANTS’ BACKGROUNDS .............................................................................................................. 164
Demographic Information of Participants ................................................................................................ 164
Participation and Perceptions of the SBDC Program .................................................................................. 167
RESULTS .................................................................................................................................................... 172
Principal Component Analysis .................................................................................................................... 173
Motivation ..................................................................................................................................................... 178
Social/Emotional Interaction ......................................................................................................................... 180
Sherpa facilitation ........................................................................................................................................ 181
Self-management .......................................................................................................................................... 183
Self-monitoring ........................................................................................................................................... 184
Self-directed readiness ................................................................................................................................. 185
Contextual congruence ................................................................................................................................. 186
Expectancy ................................................................................................................................................... 187
Correlations ................................................................................................................................................ 188
Learner Characteristics ............................................................................................................................... 190
SUMMARY .................................................................................................................................................. 194

CHAPTER 6 ................................................................................................................................................. 195
DISCUSSION ............................................................................................................................................... 195
FINDINGS .................................................................................................................................................... 196
Learner Perception of Success and Learner Expectations of Program ......................................................... 197
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nascent Entrepreneurial SDL Component Model</td>
<td>202</td>
</tr>
<tr>
<td>Social emotional interaction</td>
<td>204</td>
</tr>
<tr>
<td>Sherpa facilitation</td>
<td>207</td>
</tr>
<tr>
<td>Self-management</td>
<td>209</td>
</tr>
<tr>
<td>Self-monitoring</td>
<td>210</td>
</tr>
<tr>
<td>Self-directed readiness</td>
<td>212</td>
</tr>
<tr>
<td>Contextual congruency</td>
<td>214</td>
</tr>
<tr>
<td>Expectancy</td>
<td>216</td>
</tr>
<tr>
<td>Characteristics of the Learners</td>
<td>217</td>
</tr>
<tr>
<td>Comprehensive SDL Model Critique</td>
<td>219</td>
</tr>
<tr>
<td>CONCLUSIONS</td>
<td>223</td>
</tr>
<tr>
<td>Implications for Practice</td>
<td>223</td>
</tr>
<tr>
<td>Learner assessment and learner goal setting</td>
<td>223</td>
</tr>
<tr>
<td>Include mentoring for nascent learners.</td>
<td>226</td>
</tr>
<tr>
<td>SBDC adoption of SDL model</td>
<td>227</td>
</tr>
<tr>
<td>Clarify the role of the facilitator</td>
<td>227</td>
</tr>
<tr>
<td>APPENDIX A  QUALITATIVE SURVEY</td>
<td>230</td>
</tr>
<tr>
<td>APPENDIX B INFORMED CONSENT</td>
<td>232</td>
</tr>
<tr>
<td>APPENDIX C  SURVEY</td>
<td>234</td>
</tr>
<tr>
<td>APPENDIX D  QUALITATIVE RECRUITMENT EMAIL</td>
<td>241</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>242</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Gender of Participants</td>
<td>165</td>
</tr>
<tr>
<td>Table 2</td>
<td>Age of Participants</td>
<td>166</td>
</tr>
<tr>
<td>Table 3</td>
<td>Education Background</td>
<td>166</td>
</tr>
<tr>
<td>Table 4</td>
<td>Family Status of Participants</td>
<td>167</td>
</tr>
<tr>
<td>Table 5</td>
<td>Household Income</td>
<td>167</td>
</tr>
<tr>
<td>Table 6</td>
<td>Reason for Seeking out SBDC Learning Program</td>
<td>168</td>
</tr>
<tr>
<td>Table 7</td>
<td>Types of Learning Modalities</td>
<td>169</td>
</tr>
<tr>
<td>Table 8</td>
<td>Learner Completion Level by Subject</td>
<td>170</td>
</tr>
<tr>
<td>Table 9</td>
<td>Greatest Challenges Encountered During the Program</td>
<td>171</td>
</tr>
<tr>
<td>Table 10</td>
<td>Current Business Planning Status</td>
<td>172</td>
</tr>
<tr>
<td>Table 11</td>
<td>Students Perception Concerning Their Successful Completion</td>
<td>172</td>
</tr>
<tr>
<td>Table 12</td>
<td>Current Status of Business Development</td>
<td>173</td>
</tr>
<tr>
<td>Table 13</td>
<td>Principal Component Loadings: Pattern Matrix Results</td>
<td>176</td>
</tr>
<tr>
<td>Table 14</td>
<td>Principal Component Analysis: Total Variance Explained</td>
<td>178</td>
</tr>
<tr>
<td>Table 15</td>
<td>Principal Component Analysis: KMO and Bartlett’s Test</td>
<td>178</td>
</tr>
<tr>
<td>Table 16</td>
<td>Motivation: Independent t-test</td>
<td>181</td>
</tr>
<tr>
<td>Table 17</td>
<td>Social/Emotional Interaction, Independent t-test</td>
<td>182</td>
</tr>
<tr>
<td>Table 18</td>
<td>Sherpa Facilitation Independent t-test</td>
<td>184</td>
</tr>
<tr>
<td>Table 19</td>
<td>Self-management t-test</td>
<td>185</td>
</tr>
<tr>
<td>Table 20</td>
<td>Self-monitoring Independent t-test</td>
<td>186</td>
</tr>
<tr>
<td>Table 21</td>
<td>Self-directed Readiness Independent t-test</td>
<td>186</td>
</tr>
<tr>
<td>Table 22</td>
<td>Contextual Congruence Independent t-test</td>
<td>187</td>
</tr>
<tr>
<td>Table 23</td>
<td>Expectancy t-test</td>
<td>188</td>
</tr>
<tr>
<td>Table 24</td>
<td>Self-monitoring Variable Pearson Correlations</td>
<td>190</td>
</tr>
<tr>
<td>Table 25</td>
<td>Self-management Variable Pearson Correlations</td>
<td>190</td>
</tr>
<tr>
<td>Table 26</td>
<td>Chi-Square Gender</td>
<td>192</td>
</tr>
<tr>
<td>Table 27</td>
<td>Chi-square Education</td>
<td>192</td>
</tr>
<tr>
<td>Table 28</td>
<td>Chi-square Household Income</td>
<td>193</td>
</tr>
<tr>
<td>Table 29</td>
<td>Chi-square Family Status</td>
<td>193</td>
</tr>
<tr>
<td>Table 30</td>
<td>Chi-square Age</td>
<td>194</td>
</tr>
<tr>
<td>Table 31</td>
<td>Student Recommendations</td>
<td>195</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure 1. Scree Plot.................................................................177
ACKNOWLEDGMENTS

I would like to thank the numerous people who have made this research possible. First, I would like to thank my family: Chris, Laura, Gwendolyn, Jonathan, Mike, Amy and Melissa. Thank you for your help with taking care of your grandmother during her passing days so that I could continue to work on this project. A special thank you to my friend Essence who provided me support along this journey.

I would like to thank the members of my dissertation committee, especially my chair, Dr. Ed Taylor. Ed, thanks for your coaching, mentoring and encouragement. I would like to thank Dr. Patricia Cranton, who provided encouragement and tremendous support with interpreting the statistical analysis. I would like to thank Dr. Melody Thompson for her attention to the details of the manuscript. I would like to thank Dr. Bob Russell, for laying the foundation of this study by prodding me to examine different learning theoretical perspectives from the entrepreneurship literature. I would like to thank Dr. Robin Redmon Wright, who was able to provide new insight into the structure of my research questions.

I would like to thank my colleagues who work with me in the Kutztown University SBDC program for providing your insights and comments on different drafts of the manuscript. A special thanks to James Rodriguez, Mike Grimm, Michelle Halabura, Andrea Lewis, Peter Hornberger and Joyce Zimmerman for your willingness to help proof the final draft of the manuscript. This dissertation is the product of the collective efforts of those aforementioned and many others who have not been mentioned. Thank you all for helping me realize this dream.
CHAPTER 1
INTRODUCTION

The U.S. economy is one of most dynamic in the world because of the significant economic role of small innovative firms (Baumol, Litan and Schramm, 2007). The importance of new business creation in the U.S. economy has received widespread support over the past decade (Shane, 2009). Take, for example, U.S. President Barack Obama’s remarks “because if we can get small businesses growing and investing and opening their doors and hiring new workers, that's probably going to be the area where we can make the most progress in terms of reducing unemployment” (Obama, 2010, p. 1). Similarly, former U.S. President George W. Bush remarked, “Small businesses are vital for our workers. That’s why it makes sense to have small business at the cornerstone of a pro-growth economic policy” (Bush, 2006, p. 1). Small business is so vital to the overall economy in the U.S. that it has its own federal agency. The Small Business Administration (SBA) was established over 40 years ago with the purpose of advocating on behalf of the small business sector. The SBA Office of Advocacy defines a business as small if it acts as an independent business having fewer than 500 employees. Small firms with fewer than 500 employees represent 99.9 percent of the 24.7 million businesses as compared to just over 17,000 large businesses (SBA 2010). Having such a large number of small firms in the U.S. requires the political and policy attention at all levels of government to help ensure small businesses success. This study addresses one aspect of new venture development by focusing on trying to understand why nascent entrepreneurs discontinue their entrepreneurial learning in one of the federal and state government sponsored, university-situated entrepreneurial assistance programs.
The next section provides an overview of the federal and state technical and educational assistance programs for entrepreneurs.

**Overview of Small Business Support Programs**

The federal government support for small business development includes the Service Core of Retired Executives (SCORE), the Women Business Center (WBCs) and the Small Business Development Center (SBDC) programs. Each of these SBA-sponsored programs also provides free mentoring and low-cost training. The Small Business Administration (SBA) funds and provides oversight to the national SBDC program, under a cooperative agreement with participating host universities or sponsoring organizations in each state. The SBDC program is a cooperative effort with the private sector that provides one-stop management, education and technical assistance to current and prospective small business owners. The national network is comprised of over 1,000 regional SBDCs that help about 1.25 million small businesses each year (Harris, 2005). The SBDCs secure about $103 million annually at the federal level and every federal dollar of funding requires an equal match of local funding from the host organization that sponsors an SBDC program (Gu, Karoly, & Zissimopoulos, 2008). Every region in the country has an SBDC program that is responsible for the delivery of low-cost education along with free mentoring and consulting for the entrepreneurs in the region. The SBA also sponsors approximately 100 regional Woman Business Centers (WBC) throughout the country.

The WBCs serve women business owners by providing free consulting, mentors and low-cost training. WBCs are strategically located near major urban areas and they assist women entrepreneurs, especially those from disadvantaged groups, with obtaining women business enterprise (WBEs) certification (Gu, Karoly, & Zissimopoulos, 2008).
This certification can help women entrepreneurs become more competitive with selling their goods and services to state government procurement agencies. The SBDCs and WBCs employ full-time professional people to provide services to their entrepreneur clients. The Service Core of Retired Executives (SCORE) supports entrepreneurs through their volunteers and these services often complement the other existing entrepreneurial learning programs.

SCORE is comprised of retired executives and entrepreneurs from private industry who volunteer their time to mentor nascent entrepreneurs in an industry sector in which they possess domain knowledge (Gu, Karoly, Zissimopoulos, 2008). SCORE also has a virtual online network of members who staff an online chat room 24/7 to answer entrepreneurs' questions any time of day. In addition, they offer a suite of online learning modules about small business management content. The SBA also funds the Small Business Development Center (SBDC) network. The SBDC program employs full-time professionals to provide no-cost education and mentoring to entrepreneurs. In Pennsylvania, the SBDC regional centers are located at 18 accredited universities. The next section will discuss the SBDC program that serves as the context for this study.

**Kutztown University Small Business Development Center**

The Kutztown University SBDC is a member of the Pennsylvania SBDC network, which is comprised of 18 centers hosted by public and private higher education institutions. The center is part of an organization typology that is an adult education program, set in a four-year university with extension services (Darkenwald & Marriam, 1982). Each center determines how best to meet their local nascent entrepreneurial community needs. The core services offered at the center include free mentoring for business start-up assistance, assistance with loan packaging, assistance on marketing and
promotions and strategic planning. The center also offers low-cost training to help
entrepreneurs with business planning and other contemporary small business
management issues.

Each SBDC learner develops his or her goals in cooperation with their assigned
SBDC mentor or consultant after an initial face-to-face mentoring session. However,
nascent entrepreneurs are usually required by the SBDC program to attend several
workshops or online learning modules before meeting for face-to-face mentoring. The
goals that are established with SBDC learners focus on business-related goals, such as
forming a legal business entity. However, SBDC learner goals are not focused on
educational outcomes or goals. A typical learning program for a nascent entrepreneur
might include participation in three online learning modules, two workshops, and two
hours of one-to-one mentoring, during which the SBDC will help the entrepreneur
develop a business plan. The typical student enters the program with the expectation to
write a business plan that includes descriptions about the market segments, operations,
and financial projections. Free mentoring and short-term noncredit training is available
to every student who enters the program. The program learning workshops include
business planning and a cadre of more than 25 online modules on topics such as money,
management, and marketing. The program assists more than 1,000 entrepreneurs each
year with mentoring or consulting, and each year it offers more than 700 nascent
entrepreneurs workshops on starting a business. However, approximately 40% of these
nascent entrepreneurs discontinue the SBDC program before completing their business
plan, according to SBDC educators.

Based on student follow-up surveys, some of the students who discontinue the
learning program go on to start a business, others report that they are still in the planning
stage, and others report dropping out of the entrepreneurial process entirely. Program evaluation studies include data on those students who complete the learning successfully, but not on those who discontinue the program. Each SBDC develops its own methodology for evaluating program effectiveness. This makes it difficult to measure the effectiveness between the SBA-sponsored programs and resulted in one research team stating: “the quality of existing evaluations in terms of their ability to measure the causal effects of programs on business outcomes is, in many cases, unsatisfactory” (Gu, Karoly, Zissimopoulos, 2008, p. 32). One of the weaknesses in the design methodology of these evaluation studies is the inability to control for the selectivity of program participants (Gu, Karoly, Zissimopoulos, 2008). This is the case in the SBDC program, where only those students who have persisted in the program long enough to receive mentoring are then selected as participants for evaluation studies. Those nascent entrepreneurs who discontinue their venture activities are not included in surveys to determine the challenges that they encountered.

Moreover, the scant literature regarding entrepreneurial discontinuance focuses on why entrepreneurs stopped their pursuit of opening a business and not on why they drop out of the learning process. Consequently, no prior research has looked at the reasons that nascent entrepreneurs discontinued their SBDC entrepreneurial learning program. This research study addresses this void in the literature by focusing on why nascent entrepreneurs discontinue their SBDC learning program.

**Problem Statement**

Much of the entrepreneurship literature reports on successful entrepreneurs and their ventures, so little is known about why entrepreneurs fail (Liao & Gartner, 2007/2008). Similarly, there is little understanding about why some nascent
entrepreneurs enroll in the SBDC entrepreneurial learning program and then discontinue their educational program before they complete their learning goals. Yearly, over 700 nascent entrepreneurs start a business planning course in the SBDC program, but according to program educators, more than 40% discontinue their learning program before completing a business plan. The evidence suggests that business planning can have a significant positive influence over a nascent entrepreneur’s ability to launch a new business (Delmar & Shane, 2004; Liao & Gartner, 2007/2008; Reynolds, 2007). Moreover, business planning is an important step in the nascent entrepreneur’s learning and in the eventual decision to start the business (Liao & Gartner, 2007/2008). Thus, when nascent entrepreneurs discontinue their business planning learning programs, it raises concerns because this could reduce the number of new business starts in a regional economy.

Therefore, SBDC educators were concerned about why over 40% of their nascent entrepreneur students discontinue the entrepreneurial learning program before completion. This raises questions such as: 1) What are the reasons that nascent entrepreneurs drop out of their SBDC learning program, and 2) What challenges are students encountering with the course curriculum, instructor or program? A framework for entrepreneurial conceptual learning could help guide a study interested in answering these questions and others concerning entrepreneurial discontinuance.

Entrepreneurial scholars have found that the conceptual frameworks used to study entrepreneurial learning phenomena are underdeveloped, and there have been relatively few empirical studies that offer insight into how entrepreneurs learn (Cope & Watts, 2000). A theory from the field of adult education that offers potential for informing nascent entrepreneurial learning is the self-directed learning framework. Self-directed
learning (SDL) provides a conceptual learning framework that could help provide insight about nascent entrepreneurial learning. “In essence, self-directed learning is a self-managed or self-motivated process to learn, change, and improve” (Guglielmino & Klatt, 1994, p. 164). Research has shown that individuals with higher levels of self-directed learning and self-management tend to perform better in jobs that require these skills (Guglielmino, Guglielmino & Long, 1987). Moreover, successful entrepreneurs tend to possess a higher degree of self-managed or self-directed learning readiness as compared to others in the general population (Guglielmino & Klatt, 1994). Despite this finding, very little entrepreneurial research has used the self-directed learning framework to explore entrepreneurial learning since the original study by Guglielmino & Klatt (1994). Our understanding of entrepreneurial learning will not be complete until we have a better understanding of what causes its discontinuation (Liao et al., 2008/2009). Garrison’s (1997) comprehensive self-directed learning model could provide refreshing new insight into the entrepreneurial learning literature that is concerned with those who discontinue their educational program. The next two sections discuss the purpose and research questions that guided this study.

**Purpose Statement**

Therefore, the purpose of this mixed method research study is twofold: 1) to determine the student, instructor, and contextual factors that contribute to nascent entrepreneurs’ participation and attrition with their SBDC learning program, and 2) to explore whether the comprehensive SDL model in relationship to SBDC educators' might improve our understanding of nascent entrepreneurial learning.

**Research Questions**

Based upon the purpose, the following research questions guide this study:
1) What are the perceptions of adult learners who drop out of the SBDC entrepreneurial learning program, and how might understanding those perceptions help SBDC instructors better mitigate the negative factors and amplify the positive factors influencing learner participation and attrition?

2) What factors might comprise a nascent entrepreneurial learning model and in what ways might those factors help to further our understanding of nascent entrepreneurial participation and attrition?

3) What are the characteristics of nascent entrepreneurs at risk for discontinuing participation in the SBDC learning program?

4) How does the comprehensive SDL model help supplement our understanding of nascent entrepreneurial discontinuance in the SBDC learning program?

The next section introduces the reader to the theoretical framework that guided this study.

**Theoretical Framework**

Self-directed learning is the theoretical framework for this study and this section introduces the basic concepts of self-directed learning. A more thorough discussion of the self-directed learning framework occurs in the literature review. The self-directed learning framework borrows many concepts from the humanistic philosophy that is important to adult education (Brockett & Hiemstra, 1991).

Nascent entrepreneurs are choosing a career path that makes them ultimately responsible for their very livelihood, so it is not difficult envisioning them also taking responsibility for their learning. Entrepreneurs are also highly self-motivated and creative individuals who continuously learn as a way to improve their business (Politis, 2005). Therefore, the self-directed learning model could provide insight into the body of knowledge regarding entrepreneurial learning. There are numerous models and
assumptions related to the self-directed learning framework. The decision to select the Comprehensive self-directed learning model (Garrison, 1997) for this study was influenced by a desire for the learning model to be practical for theoretical understanding of: 1) SDL in the SBDC formal learning context of this study, and 2) the desire for the model to guide the study in relation to the individual students motivation to complete their learning program.

The comprehensive, self-directed learning model fulfills these criteria because it provides a framework for understanding adult learning in formal learning environments and it includes the motivational construct (Garrison, 1997). The model has three dimensions, including: 1) self-management (control), 2) self-monitoring (responsibility), and 3) motivation (entering/task), (Garrison, 1997). Self-management is the process where “goal management, learning methods, support, and outcomes are collaboratively and continuously assessed and negotiated” (Garrison, 1997, p. 22). Self-monitoring refers to “monitoring the repertoire of learning strategies as well as an awareness of and an ability to think about our thinking and modify thinking according to the learning task/goal” (Garrison, 1997, p 24). The first dimension discusses the role of self-management.

The self-management dimension recognizes a collaborative role for the instructor in formal educational settings. Student learning is done in collaboration with a teacher, mentors, and other actors in the social context through a social constructivist paradigm. The teacher provides support, guidance and formal standards, which are necessary for a successful educational outcome (Garrison, 1997). This dimension of the model could also provide insight for this study by acknowledging the important role of the mentor with nascent entrepreneurial learning. Self-management is also concerned with learning
proficiency, resources and interdependence. Proficiency relates to the abilities and skills of the student and mentor (Garrison, 1997). Proficiency, resources and interdependence dimensions of this model provide insight for SBDC educators by considering how well these dimensions are developed in those learners who discontinue their learning program. This brings us to self-monitoring, the second dimension of the self-directed comprehensive model.

Self-monitoring in this model implies that the learner is responsible for making new meaning through critical reflection, metacognition, and through collaborating with others for confirmation. *Metacognitive proficiency* refers to learners’ ability to think critically and reflectively on their lived experiences (Garrison, 1997). This involves integrating existing knowledge with new knowledge to ensure that the learners are meeting their learning goals. Consequently, in keeping with the self-directed learning model, the individual student is to be the primary person responsible for his or her learning and assessment of the learning goal. This study will rely on the individual student assessment for defining his or her learning goal success in the SBDC program (Garrison, 1997).

The comprehensive SDL model addresses both the learner’s *entering motivation* and *task motivation* as part of the motivation dimension. The student’s entering motivation is contingent upon the student’s rational intentions that are related to selecting learning goals. The level of a student’s entering motivation is largely dependent on the student’s valence and expectancy. *Valence* refers to the degree that the student is attracted to the learning goals, while *expectancy* refers to the belief that the student’s desired outcome can be achieved (Garrison, 1997). Task motivation is the student’s tendency to focus on and to persist in learning activities and goals. This addresses the
different aspects of motivation that prior self-directed learning models have not acknowledged. The motivation dimension in the comprehensive SDL model also includes the learner’s personal needs and affective states.

This model conceives personal needs (values) and affective state (preferences) as reflecting the degree of valence (Garrison, 1997). The importance of the learning goal to the student represents the learner’s personal needs and this concept refers to the student’s affective and cognitive states. Affective states are manifest through the student’s attitudes about self, learning goals and task (Garrison, 1997). The degree of valence in this self-directed learning model could provide new insight for this study by considering the interaction between the entrepreneur’s affective state and his or her cognitive state, and the effect that this interaction has on the decision of an entrepreneur to discontinue his or her educational program. The comprehensive SDL model provides the theoretical lens to this study.

The entrepreneurial scholarly community has identified gaps in the field related to entrepreneurial learning and the entrepreneurship literature provides important definitions for constructs related to the field of entrepreneurship. The next section will provide the reader with an overview of definitions and concepts related to the entrepreneurship discipline.

**Entrepreneurship as a Discipline**

This study defines nascent entrepreneurship broadly as ‘that set of strategic activities involved in the initiation and development of new ventures’ (McMullan & Long, 1990, p 16). A nascent entrepreneur is one who initiates serious activities that culminate into a viable business start-up (Reynolds, 1994; Aldrich & Martinez, 2001). The goal is to become an entrepreneur through founding a new venture (Sequeira,
Entrepreneurs are typically involved in gestation activities such as seeking financing, applying for licenses and permits, and writing a business plan (Reynolds, 1997). This gestation period results in one of two outcomes: the individual abandons the idea, or he or she launches the infant firm (Reynolds, Carter, Gartner, & Green, 2004). As compared to an established entrepreneur, a nascent entrepreneur may not have prior experience in starting a business. Likewise, he or she may or may not have specific industry experience. Entrepreneurial scholars are interested in what factors lead someone to become an entrepreneur and how to identify and support these potential entrepreneurs.

Entrepreneurship is a process that often evolves over the course of a career (Gartner, Shaver, Gatewood, & Katz, 1994; Kyro & Carrier, 2005). An entrepreneurial intention to start a business occurs before entrepreneurial behaviors are undertaken (Fayolle, Gailly, & Lussas-Clerc, 2006; Kolvereid, 1996). An individual’s stated intentions are considered the best predictor of behavior (Ajzen 1991, 2002; Fishbein & Ajzen, 1975). Three key motivational factors that influence a person’s decision to become an entrepreneur include, attitude toward start-up, subjective norm, and perceived behavioral control. Personal attitude refers to the degree that a person views entrepreneurship as either a positive or negative career path (Azjen, 2001; Autio, Keeley, Klofsten, Parker & Hay, 2001; Kolvereid, 1996; Linan and Chen, 2009). Subjective norm refers to the perceived social pressure to either carry out or not carry out the business start (Azjen, 2001). Perceived behavioral control is the perception of difficulty or ease in starting a business (Bandura, 1997). One of the core behaviors that many nascent entrepreneurs engage in after they form their intention to start a venture is the process of
writing a business plan (Liao & Gartner 2007/2008). The next section will introduce foundational literature concerning entrepreneurial learning frameworks.

**Entrepreneurial Learning Theory**

Many aspects of entrepreneurial learning theory are underdeveloped (Deakins, 1996; Rae & Carswell, 2000) and an argument exists that the field of entrepreneurship lacks the conceptual frameworks to adequately describe how entrepreneurs learn (Cope & Watts, 2000). The entrepreneurship learning theory literature borrows from the human capital theory and social capital theory (Becker, 1975; Carter & Brush, 2004; Davidson & Honig, 2003; Ucbasaran, Wright & Westhead, 2008). *Human capital theory* refers to a hierarchy of skills and knowledge residing within the student (Ucbasaran et al., 2008). According to human capital theory, entrepreneurs with superior quality in human capital should be more successful (Becker, 1975; Davidson & Honig, 2003; Ucbasaran et al., 2008). *Social capital theory* refers to the entrepreneur’s support network made up of mentors, investors, suppliers, and customers (Carter & Brush, 2004). What is most relevant to this study is the scant entrepreneurship learning literature developed from the self-directed learning framework.

Learner attributes such as self-directed readiness and motivation are critical enhancers regarding the effectiveness of entrepreneurial online learning, and entrepreneurs have many attributes associated with self-directed learners (O’Hara, 2005). *Self-directed learning* is a self-managed or self-motivated process to learn, change and improve knowledge (Guglielmino & Klatt, 1994). Thus far, only two prior entrepreneurial studies used a self-directed learning framework in their research regarding entrepreneurial learning studies (Guglielmino & Klatt, 1994; Ohara, 2005). The comprehensive SDL model may help explain gaps in the entrepreneurial literature.
pertaining to an underdeveloped learning theory for nascent entrepreneurial learning. An important aspect of this study concerns entrepreneurial discontinuance and the next section provides the reader with an overview of the literature regarding this topic.

**Entrepreneurial Discontinuance**

While we know much about how established entrepreneurs learn from their experiences in business, as with the case of serial entrepreneurs, there is little known about nascent entrepreneur failure or discontinuance (Liao & Gartner, 2007/2008). *Entrepreneurial discontinuance* refers to an action taken by the entrepreneur to suspend his or her venture during the gestation phase (Liao, et al., 2008/2009). The lack of studies of nascent entrepreneurs who discontinue their venture planning may be due to the difficulty in identifying those nascent entrepreneurs who are in the early stages of their business activities. However, what we do know about nascent entrepreneurs is that some activities can help improve the start-up rate of nascent entrepreneurs (Delmar & Shane, 2003).

One of these activities is business planning, the value of which has received considerable attention and debate. *Business planning* helps the nascent entrepreneur develop a framework and context so that entrepreneurs can: 1) communicate to others the purposes, objectives and activities for success, 2) identify what they don’t know, 3) know what resources they need to secure, and 4) define specific actions that can help solve problems and achieve goals (Delmar & Shane, 2003). Nascent entrepreneurs who complete their business plans are six times more likely to start their businesses than those who do not complete their business plans (Delmar & Shane). Moreover, those nascent entrepreneurs who participate in government-sponsored entrepreneurship educational programs are five times more likely to start a business than are entrepreneurs who do not
participate (Liao & Gartner, 2007/2008). Prior studies reveal that much of the learning that takes place with established entrepreneurs is experiential in nature (Deakins & Freel, 1998; Minniti & Bygrave, 2001; Sullivan, 2000).

In summary, entrepreneurs who succeed are frequent subjects in research because they are easy to identify and researchers are interested in the stories of successful entrepreneurs. Fewer studies engage entrepreneurs who fail. Consequently, nascent entrepreneurs who engage in business start-up activity and then discontinue their activity before actually starting their businesses are not subjects in many studies (Liao & Gartner, 2007/2008). This study helped to fill this gap in the entrepreneurship literature by focusing on entrepreneurial learning discontinuance within the context of the Kutztown University SBDC program.

The next section provides the reader with an overview of the study's research design and methodology.

**Overview of Research Design and Methodology**

This study utilized a mixed methods research design to explore the research question concerning entrepreneurial learning discontinuance. *Mixed methods research* is defined as an intellectual and practical synthesis that is based on qualitative and quantitative research; it is the third methodology (Johnson, 2007). Mixed methods research recognizes the importance of traditional quantitative and qualitative research, but it also offers a powerful third choice that often will provide the most informative, complete, balanced and useful research results. Mixed method research has its own assumptions and methods for inquiry (Creswell & Clark, 2007).

The mixed research methodology guided the data collection and analysis. This method provided rules for collecting, analyzing, and mixing both qualitative and
quantitative data (Creswell & Clark, 2007). “The major advantage of mixed methods research is that it enables the researcher to simultaneously answer confirmatory and exploratory questions, and therefore verify and generate theory in the same study” (Teddie & Tashakkori, 2003). This was a critical issue in selecting the mixed methods design. The entrepreneurship literature represents mostly quantitative studies, and yet “some questions simply do not get asked, or cannot be asked, when undertaking quantitative studies. It is this conundrum (What is missing?) that qualitative research might be better suited. How then can these ‘missing’ questions be asked?” (Gartner & Birley, 2002, p. 388). Using a mixed method research design with a nascent entrepreneurial study allowed me to bridge this divide of being able to ask new questions, while also upholding what the entrepreneurial scholarship community recognizes as rigorous research.

This study explores the phenomena surrounding why nascent entrepreneurs discontinue their entrepreneurial learning program. Mixed methods research has several advantages for addressing this type of research question. For example, this method can enhance the quality of data gathered from individual participants through qualitative data collection methods. However, the quantitative phase of mixed method design can offset the problem of not being able to generalize the findings that are often a weakness related to qualitative research (Creswell & Clark, 2007).

There are a number of options for mixing the design types within a mixed method study. The nature of the research questions and the established criteria helped to guide me in selecting the appropriate type of design that could best answer the research questions (Creswell & Clark, 2007). To guide the selection of the type of design for this study, it is important to note that existing survey instruments were not available for
testing the phenomena and the development of a survey instrument was an important desired outcome for this study. Before this study, the descriptive variables that were useful in describing the challenges faced by nascent entrepreneurs who discontinue their learning program did not exist, and there was no guiding framework for nascent entrepreneurial learning discontinuance. These factors, along with recommendations from my committee were influential in guiding my selection of the sequential exploratory design for this study.

The sequential exploratory design is useful when there is a desire to develop and test an instrument (Creswell et al., 2004) or when the quantitative categories are not known (Creswell & Clark, 2007). Moreover, this design type is appropriate when there is a desire to test an emergent classification and when the researcher desires to explore phenomena in depth (Morgan, 1998). Thus, the research questions for this study aligned closely with the criteria established for selecting the sequential exploratory design. The sequential exploratory design type relies on qualitative data to explore the phenomena in depth and then this data shapes the quantitative design phase (Creswell & Clark, 2007). For example, one of the outcomes desired from this study was an instrument that could help identify at-risk students in the SBDC entrepreneurial learning program, and the qualitative phase of this study helped to provide relevant categories to use in the survey.

The next section discusses the relevance of this study with various constituencies.

**Significance**

Entrepreneurs’ contributions to the overall economy and to job creation are well established (Baumol, Litan and Schramm, 2007; Bush, 2006; Obama, 2010; Shane, 2009). Each year approximately 0.30 percent of the adult workforce is engaged in starting a new small business (SBA Office of Advocacy, 2006). The SBDC program is a national
educational outreach program catering to the learning and mentoring needs of entrepreneurs. The national program served over 1.25 million entrepreneurs in 2005 (SBA Office of Advocacy, 2006). Each year, more than 300,000 nascent entrepreneurs take advantage of low-cost SBDC educational programs. In Pennsylvania, 8,770 entrepreneurs received assistance from one of the 18 SBDC programs in 2007 (Chrisman, 2008). On average, each year over 700 nascent entrepreneurs enter the Kutztown University SBDC learning program. However, over 40% of these nascent entrepreneurs who enter the SBDC entrepreneurial learning program discontinue their learning program before they successfully complete their learning goals. We know very little about those nascent entrepreneurs who discontinue their entrepreneurial learning programs. This study addressed the gap in the entrepreneurship literature, and the gap in the SBDC program evaluation studies by identifying the learning challenges, and obstacles faced by those entrepreneurs. Consequently, this study has significance to government entrepreneurial development policy makers, such as SBA and SBDC program managers who are responsible for improving the effectiveness of the SBDC learning program.

The findings from this study will also have significance for future entrepreneurs who desire additional support and education from the SBDC program. This study provided new insight about the challenges and obstacles that make entrepreneurs at risk for discontinuing the program. This insight will help new SBDC program students incorporate different learning strategies when faced with various challenges during the educational program. This could help future students make better choices, among alternative entrepreneurial educational programs in which they can choose to participate. In addition, this study is significant to entrepreneurial educators because it provides new
insight to help adult educators identify other interventions that might keep students’ more engaged with their entrepreneurial learning program.

This study advances the theoretical knowledge of nascent entrepreneurial learning that was stated as: “What still largely remains unanswered in the literature is consequently the question of how entrepreneurs develop entrepreneurial knowledge that indirectly may have a positive impact on subsequent venture performance” (Politus, 2005, p. 400). This study fills part of this conceptual void in the entrepreneurship literature by using the self-directed learning framework to provide new insights regarding nascent entrepreneurial learning. The hypothesis concerning the comprehensive self-directed learning model as being relevant to nascent entrepreneurial learners was supported by the findings. Moreover, the study provided new insight into how entrepreneurial educators can use the self-monitoring and self-management dimensions of the self-directed learning comprehensive model to improve their learning strategies. Finally, the mixed method research design in this study may help advance the use of mixed methods research in future entrepreneurship studies as there have been few methodological studies attempted outside the quantitative design.

This study is significant for the SBDC program at Kutztown University because positive student outcomes are essential for future funding for the program. This study also addressed the under-represented views of those who drop out of their entrepreneurial learning program. Finally, this study is significant to the field of adult education by contributing to the literature about learner participation and discontinuance in short-term formal continuing education programs. The next section provides the reader with an overview of some important definitions used throughout this study.
Definitions

Terms used throughout this study include the following:

**Business plan** is a narrative that discusses the business venture’s target market, marketing strategy, competition, personnel, operational issues (i.e., timetable) and a minimum of a one-year projected cash flow (Kawasaki, 2007).

**Entrepreneurial learning discontinuance** describes an action by a nascent entrepreneur who is participating in an entrepreneurial learning program that suspends his or her venture creation effort during the gestation process (Liao et al., 2008/2009).

**Entering motivation** is related to valence and reflects the level of attraction toward the learning goal (Garrison, 1997).

**Entrepreneurship process** begins with a business concept envisioned by the entrepreneur and proceeds to the point where it becomes necessary to identify and acquire the physical, human, and capital resources necessary for start-up (Timmons, 1994).

**Entrepreneurial learning** “is a continuous process that facilitates the development of necessary knowledge for being effective in start-up and managing a new venture” (Politus, 2005, p. 401).

**Metacognitive proficiency** relates to the learners ability to think critically and reflectively on their lived experiences (Garrison, 1997).

**Nascent entrepreneur** is one who initiates serious activities that are intended to culminate in a viable business start-up (Reynolds, 1994; Aldrich & Martinez, 2001).

**Opportunity recognition** is the ability of the entrepreneur to discover and develop business opportunities (Politus, 2005).

**Self-Directed Learning (SDL)** “is a self-managed or self-motivated process to learn, change, and improve” (Guglielmino & Klatt, 1994, p. 164).
Self-management is a process where, “goal management, learning methods, support, and outcomes are collaboratively and continuously assessed and negotiated” (Garrison, 1997, p. 22).

Self-monitoring is “monitoring the repertoire of learning strategies as well as an awareness of and an ability to think about our thinking and modify thinking according to the learning task/goal” (Garrison, 1997, p. 24).

Successful completion of SBDC learning is a positive learning outcome in the SDL learning framework that positions the student as responsible for his or her own self-evaluation of learning (Brockett & Hiemstra, 1991; Brookfield, 2005; Candy, 1991; Garrison, 1997; Grow, 1991; Houle, 1961; Tough, 1967).

The next section discusses some of the assumptions that were made in relation to this study.

**Assumptions of the study**

Before initiating the study, I made several assumptions. For example, I assumed that individuals who enter the SBDC learning program have intent to finish their learning goals. I assumed that individuals know how to register for the SBDC program resources, and that the SBDC instructors would help all of their students that enter the learning program with approximately the same level of enthusiasm. I assumed that an adult learning theory might intersect with the entrepreneurship literature to help inform our understanding of entrepreneurial learning discontinuance. Finally, I assumed that learners who discontinue their entrepreneurial learning program would have insight into why they chose not to complete the SBDC program.

**Summary**
This mixed method sequential design study sought insight concerning nascent entrepreneurial discontinuance in the SBDC entrepreneurial learning program. This study used the self-directed comprehensive learning model as the theoretical lens to explore the phenomena. The study sample included nascent entrepreneurs’ who enter the SBDC entrepreneurial learning program, and then discontinue the program before they complete a business plan, or finish their learning goals. Improving the learners’ completion rate could result in increased business starts and a more vibrant economy.

The next chapter is the literature review about foundational concepts to this study including, self-directed learning, entrepreneurial learning and learning discontinuance.
CHAPTER 2
LITERATURE REVIEW

The purpose of this exploratory mixed-method study was to gain insight into the learning challenges encountered by nascent entrepreneurs engaged in Small Business Development Center (SBDC) entrepreneurial learning programs. This study explored nascent entrepreneurial learning through the comprehensive self-directed learning model. This study originated from the observation that as many as 40% of the nascent entrepreneurs who enroll in an SBDC entrepreneurial learning program drop out before completion or achievement of critical outcomes, such as a business plan or market feasibility study. Although entrepreneurial discontinuance has been studied in prior research (Liao, Welsch & Moutray, 2008), no prior research had been conducted on entrepreneurial learning discontinuance in formal learning programs using the self-directed learning framework, before this study. This study sought to be of value to key stakeholders such as entrepreneurs, economic development organizations, banks, and policy makers (Liao et al., 2008).

The literature review begins with a brief introduction and definition of the self-directed learning framework followed by the themes of seven core assumptions underlying this framework. This is followed by an in-depth discussion of the comprehensive self-directed learning model. The next section introduces foundational literature relative to entrepreneurship and follows with discussion concerning the intersection between entrepreneurship and self-directed learning. The review concludes with an examination of the literature regarding barriers to participation in, and discontinuance of, education in adult formal learning programs.
**Self-Directed Learning Theory**

Self-directed learning serves as the framework for this study. It is defined as a process by “which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes” (Knowles, 1975, p. 18). Hiemstra (1976) provided additional clarity with his definition of *self-planned learning* as “a learning activity that is self-directed, self-initiated, and frequently carried out alone” (p. 39). This promoted the notion that practitioners should engage students in activities where primary responsibility for planning, carrying out, and evaluating a learning endeavor is under the control of the individual learner. This broader definition was offered as a way to promote self-directed learning as an umbrella concept encompassing all of adult learning (Hiemstra, 1976). When designing a research study it is important to define the intended focus of the study and the core assumptions of the theoretical framework.

The study of self-directed learning can start from one of six starting points according to Tough (1979). A researcher can begin the study of adult learning with 1) the needs of a community or society; 2) the institution engaged in promoting adult education; 3) the individual learner; 4) a philosophical position; 5) the body of knowledge to be disseminated to a targeted learning group; or 6) one or more methods of learning or teaching. This study focuses on how the self-directed learning framework informs adult educators about learning discontinuance in formal settings. The self-directed learning framework is one of the most researched topics in adult education with various scholars contributing to the literature (Brookfield, 2005).
The literature reveals seven core assumptions underlying the self-directed learning framework. The first assumption is that foundational concepts provide an overview of the contribution that the Western ideologies of humanism and constructivism played in the early development of the self-directed learning framework (Knowles, 1975, 1984; Brockett & Hiemstra, 1991). The second assumption includes learner motivational dimensions and the third assumption relates to the learning social context (the setting as well as the social relationship dynamics affecting the learner) (Brockett & Hiemstra, 1991; Garrison, 1997). Then the assumptions concerning personal autonomy, self-management in learning, and learner control of instruction are presented (Candy, 1991). Finally, the assumption relating to power in the self-directed learning framework is discussed. These foundational constructs are defined in the order presented and the next section leads with an introduction to the foundational concepts grounding the self-directed learning framework.

**Self-Directed Learning Foundational Concepts**

The self-directed learning framework foundational concepts include the Western ideology of individualism and the concept of egalitarianism (Brookfield, 2005). Other foundational concepts are the humanistic educational philosophy and the constructivist learning perspective (Brockett & Hiemstra, 1991; Brookfield, 2005; Candy, 1991; Garrison, 1997; Tough, 1967). Self-directed learning scholars assume that learning starts with the individual (Brockett & Hiemstra, 1991; Brookfield, 2005; Candy, 1991; Garrison, 1997; Grow, 1991; Houle, 1961; Tough, 1967). Keddie (1980) provides some context and definition for *individualism*, stating, “The notion of individuality as a desirable personality goal is not universal, but is culturally specific and tends to be found in those cultures [such as ours] where high status is obtained by competitive individual
achievement” (p. 54). The ideology of individualism in Western society informs our understanding of self-directed learning and the folklore of individualism, (self-made person) helping to explain its popularity in Western societies (Brookfield, 2005). The focus of self-directed learning is on the individual learner assuming primary responsibility for his or her own learning (Caffarella, 1993). Thus, the ideology of individualism contends that individuals have the means to control and manage their own learning in adulthood (Brockett & Hiemstra, 1991; Brookfield, 2005; Candy, 1991; Garrison, 1997; Grow, 1991; Houle, 1961; Tough, 1967). In addition to individualism, the concept of egalitarianism provides insight into this framework (Brookfield, 2005).

The concept of egalitarianism is defined as the concern with issues of equity, fairness, and justice (Flew, 1976). Egalitarianism places the educator and learner as equals to the point that it is inferred that there is “no relevant difference between those qualified to teach and those still under instruction” (Flew, 1976, p. 1). Although a number of self-directed scholars do not discuss the role of the teacher, those that do view the instructor as equal with their learner (Candy, 1991; Garrison, 1997; Grow, 1991). Thus, when the teacher is involved in helping the self-directed learner, he or she is viewed as an equal in the educational process (Brookfield, 2005; Brockett & Hiemstra, 1991; Candy, 1991, Garrison, 1997). Our understanding of self-directed learning is also enhanced by reviewing the foundation literature of the constructivist learning perspective.

Constructivism is defined as the process of constructing meaning from our own experiences, and much of our adult learning is accomplished through experience (Merriam, Caffarella & Baumgartner, 2007). There are various perspectives related to constructivism that are on a continuum between those that believe that the learner constructs meaning through his or her individual experiences to those who maintain that
meaning-making is achieved through social dialogue with others (Merriam et al., 2007). Self-directed learning is viewed as a collaborative constructivist perspective (Garrison, 1997). This perspective views the learner as taking primary responsibility for the educational transaction while including others in the validation of their knowledge. Therefore, the constructivist perspective informs educators’ understanding of self-directed learning because it emphasizes active inquiry, independence, and individuality in the learning task (Candy, 1991). Self-directed learning is also heavily influenced by the philosophy of humanism (Candy, 1991).

*Humanistic philosophy* in relation to adult education is defined as the belief that learners can control their own education. It maintains that learners are inherently good and will use their education to better their communities. The perspective also maintains that learners are free to act, learners possess unlimited potential for growth and development, and learner behavior is a consequence of personal choice (Rogers, 1983; Maslow, 1970). “From a learning perspective, humanism emphasizes that perceptions are centered in experience, and it also emphasizes the freedom and responsibility to become what one is capable of becoming” (Merriam et al., 2007, p. 282). Similarly, the role of experience to learning and the autonomy of the individual learner are central concepts to self-directed learning (Brockett & Hiemstra, 1991). Humanism combined with the constructivist perspective guides the assumptions underlying the self-directed learning framework (Brocket & Hiemstra, 1991; Caffarella, 1993; Candy, 1991).

The humanistic philosophy informs educators’ understanding of self-directed learning through other assumptions and expectations that spawned from those opposed to the behaviorist-oriented learning tradition. For example, a humanistic educator positions the role of the teacher as a facilitator with the student at the center of the educational
process, and learning takes place through learner exploration. Similarly, self-directed learning assumes a personal relationship between teacher and student that is built on empathic understanding (Brockett & Hiemstra, 1991; Garrison, 1997; Grow, 1991). Deep respect for each other is a condition for effective teacher-student relationships (Brockett & Hiemstra, 1991; Garrison, 1997). As Patterson (1973) notes, the teacher-student relationship must be built on “understanding, empathy, concern, liking, prizing, acceptance, respect, warmth, sincerity, openness, authenticity, transparency, [and] intimacy” (p. 72). The self-directed educator that fails to show the student these basic qualities creates a dehumanizing condition and inhibits a learner in achieving their full potential (Brockett & Hiemstra, 1991; Garrison, 1997). Humanism informs educators understanding of the experiential learning aspect of self-directed learning.

Experiential learning occurs from engaging the learner personally in both the affective and cognitive dimensions (Rogers, 1969). Similarly, the comprehensive self-directed learning model includes the affective and cognitive dimensions (Garrison, 1997). Because learning from a humanistic perspective is self-initiated, motivation stems from within the student (intrinsic). Self-directed learning also positions the learner as responsible for his or her own self-evaluation of the learning program (Brockett & Hiemstra, 1991; Brookfield, 2005; Candy, 1991; Garrison, 1997; Grow, 1991; Houle, 1961; Tough, 1967). That is why this study asked the participants to evaluate if they were successful with their learning goals. Intrinsic motivation is defined as occurring “whenever people behave for the satisfaction inherent in the behavior itself” (Ryan & Deci, 2000, p. 16). Thus, humanism helps to inform educators understanding of self-directed learning through the desire of learners to use intrinsic motivation to achieve their full potential.
According to a humanistic educational philosophy, “the purpose of education is to develop self-actualizing persons” (Patterson, 1973, p. 22). The self-actualized person is defined as one who exploits and maximizes their potentialities, talents, and capacities (Maslow, 1970). This individual “would be the type of person from whom creative products and creative living emerge” (Rogers, 1969, p. 290). They are continually growing and changing as a person (Patterson, 1973). The concept of striving to become the self-actualized person through learning is a central concept to self-directed learning (Brockett & Hiemstra, 1991; Long, 1994; Grow, 1994; Merriam et al., 2007; Tough, 1979; Rogers, 1969). If learners are striving to be self-actualizing then this raises the question of how motivational theory might inform educators understanding of the self-directed learning framework. The next section considers how several constructs related to motivation help to define self-directed learning.

**Self-Directed Learner Motivational Dimensions**

Self-directed learner motivational dimensions include both extrinsic and intrinsic motivation, biological factors, effort, learner attributions and self-efficacy. Each of these constructs is defined as they are presented in this section. *Motivation* as an educational construct is defined as a “student's tendency to find learning activities meaningful and worthwhile and to try and get the intended benefits from them” (Brophy, 1997, p. 208). Motivation is not explicitly discussed in every self-directed learning model, however, in those models that do discuss the construct there are differing viewpoints (Brockett & Hiemstra, 1991). Grow (1991) views learner motivation as both intrinsic and extrinsic. *Extrinsic motivation* is defined as those positive reinforcements or rewards provided to the learner by others, such as the praise from teachers, recognition for good grades, etc. (Brophy, 1997). According to some scholars, extrinsic motivation for a specific learning
task could come from a teacher or mentor in formal learning situations (Brockett & Hiemstra, 1991; Garrison, 1997; Grow). However, the role of the self-directed teacher is to eventually phase out praise (extrinsic motivation) and phase in encouragement to help build intrinsic motivation in the learner (Grow, 1991). Sometimes, life-changing events create the motivation to learn something new (Tough, 1979).

In relation to motivation, several self-directed scholars state, “motivation and intensity to learn are often enhanced by a catalyst, such as another person stimulating interest or late-life change in family or health” (Merriam et al., 2007, p. 117). Many self-directed learning scholars assume that adult learners are intrinsically motivated (Brockett & Hiemstra, 1991; Garrison, 1997; Grow, 1991; Long, 1990). “Intrinsic motivational strategies apply when students value (or can learn to value) the activity itself” (Brophy, 2010, p. 152). Intrinsic motivation is related to a person’s basic needs such as physical needs, growth needs, the need for security, the need for new experiences, and the need for affection (Knowles). Wlodkowski (2008), in relation to psychological factors affecting motivation in adult learners, states, “Intrinsic motivation is governed to a large extent by emotions which in turn are socialized through culture” (p. 20). Similarly, the comprehensive self-directed learning model recognizes the important role that the affective dimension has on intrinsic motivation (Garrison, 1997). The comprehensive self-directed learning model is discussed in-depth in a later section. Still, other scholars view learner motivation as an innate biological quality.

The biological perspective on motivation and learning is not explicitly recognized by any of the self-directed learning models—a shortcoming, especially for the comprehensive self-directed model that specifically includes a motivation dimension in the model. However, several self-directed learning models imply a link to some
dimensions of the biological perspective, such as effort and attention (Brockett & Hiemstra, 1991; Garrison, 1997). From a biological perspective, motivation is defined as a process that “determines how much energy and attention the brain and body assign to a given stimulus—whether it’s a thought coming in or a situation that confronts one” (Ratey, 2001, p. 247). Consequently, motivation directs purposeful behavior through structures and systems of the brain and body (Ratey, 2001).

Within the self-directed learning context, the amount of effort exerted by the learner becomes one of the most important indicators of motivation and this is recognized in the comprehensive self-directed learning model (Garrison, 1997; Plaut & Markus, 2005). Effort is what helps self-directed learners persist with their education even when faced with challenges and obstacles (Garrison, 1997; Wlodkowski, 2008). However, there are two differing opinions regarding the importance and value of individual effort due to different learner attributions.

Learner attributions are defined as beliefs concerning the causes of outcomes (Weiner, 1992). Weiner’s attribution theory of achievement contends that learners ultimately attribute their successes and failures to factors such as ability, effort, task difficulty or luck. Other attributions might include factors external to the learner, such as teacher’s attitude, illness, physical discomfort and other distractions. Students will interpret success obtained repeatedly and easily as being related to their personal ability. However, students will attribute success to effort when the learning task requires much persistence and mental fatigue (Schunk, 2008). This informs educators’ understanding of the comprehensive self-directed learning model because attributions and task difficulty are key dimensions of the model (Garrison, 1997). The staged self-directed learning model helps inform educators’ understanding of learning stemming from the teacher-
learner transaction (Grow, 1991). Other self-directed learning models, such as the personal orientation model (PRO), acknowledge the role of learner attributions.

The PRO self-directed learning model borrows from the attribution literature (Brockett & Hiemstra, 1991). For example, “Self-directed learning is a combination of forces both within and outside the individual that stress the learner accepting ever-increasing responsibility for decisions associated with the learning process” (Brockett & Hiemstra, 1991, p. 9). Self-direction in learning is defined by the PRO model from two distinct perspectives. The phrase learner self-direction, highlights the importance of the adult learner assuming control over their learning (the internal psychological domain); whereas, the phrase self-directed learning, in this model is describing the learner taking primary responsibility for planning, implementing, and evaluating the learning process (the external domain concerned with instructional processes).

In the PRO model the learner assumes primary responsibility for their learning program and the teacher is not a significant actor in the student's learning process, unless the assessed level of self-directed readiness level warrants teacher intervention. Specifically, self-directedness is viewed as a learner attribution in both the comprehensive and PRO self-directed learning models (Brockett & Hiemstra, 1991; Garrison, 1997). Enhancing a student’s self-regulating learning skills relies on that student’s attributions and level of self-efficacy about a learning goal.

Perceived self-efficacy is defined as the learner's beliefs about his or her capabilities to produce effects (Bandura, 1997). Self-efficacy is a vital aspect of the motivation that self-directed learners require to help them master their learning goals. Some self-directed learning scholars contend that increasing learner self-directedness also increases learner self-efficacy (Brockett & Hiemstra, 1991; Garrison, 1997; Grow, 1991).
Research has confirmed that academic self-efficacy has a major impact on a learner’s achievements, regardless of knowledge and skills. Self-efficacy also balances the effect of motivation and previous knowledge in relation to learning outcomes (Bandura, 1997; Pajares, 1997; Schunk & Pajares, 2005).

For self-directed learning educators, the important understanding is that when learners experience success, it enhances their self-efficacy and their belief that their personal capability, effort and knowledge are the major cause of their successes (Brockett & Hiemstra, 1991; Garrison, 1997; Wlodkowski, 2008). Therefore, self-efficacy beliefs provide the foundation for human motivation, well-being, and personal accomplishment (Pajares, 1997). For example, Houle (1961), in referencing the self-directed learner stated, “The goal-oriented are all alike in their confident acceptance of adult education as a way to solve problems to pursue particular interest” (p. 35). This helps learners feel more confident because capability and effort are fairly stable and under their control (Garrison, 1997; Wlodkowski, 2008). Ultimately, high self-efficacy helps learners to face obstacles as challenges to be mastered, instead of as a threat that should be avoided (Pajares, 1997). The motivational dimensions of extrinsic and intrinsic motivation, biological, effort, learner attributions and self-efficacy are viewed in some SDL models as being affected by the social context of the learning. In the next section, the social context assumption is discussed in relation to how it influences the self-directed learning framework.

**Social Context**

Social context refers to the societal factors surrounding the individual, including the collective needs of the group and the community as it relates to the self-directed learner's education (Brookfield, 1985). **Social context** is defined as the individual
learner’s reflection of that person’s culture and total experiences within a society (Jarvis, 1987). For example, dress, language, hopes, dreams and style all reflect and influence how an individual approaches their learning. Family background, gender, ethnic background and social class are factors that affect how the self-directed learner approaches any new learning situation. The way that learners are raised to think about education contributes significantly to how they cognitively approach new learning situations. In some respects, the self-directed learning framework ignores the social context of adult learners at the expense of being focused on the technical skills of the individual in setting their own learning goals (Brockett, 1985; Brookfield, 1985). Brookfield went a step further and suggested that self-directed learning scholars needed to consider how the framework could address issues such as the learner’s critical scrutiny of his or her existing value structures and belief systems. Critical self-scrutiny of one’s belief systems is the first step toward fully understanding one’s culturally constructed knowledge and values (Brookfield).

The PRO self-directed learning model included social context as a dimension that influences self-directed learning. The self-directed learning personal responsibility orientation (PRO) model acknowledges the social context of a given learning situation (Brockett & Hiemstra, 1991. This model conceives the individual and the social context working together to influence learning in the educational context. A learner’s readiness to be self-directing and the optimal degree of self-directed learning could change for an individual learner based on social context factors (Brockett & Hiemstra). Still, other self-directed learning scholars advocate for educators to integrate aspects of the critical perspective into the self-directed learning framework, a perspective that would include a
larger social action role for the practice (Brockett & Hiemstra; Brookfield, 1985; Hammond & Collins, 1991).

Hammond and Collins (1991) developed a broader role for the self-directed learning framework by integrating critical awareness into their perspective. They believe that self-directed learning has to go beyond just being concerned with the personal learning needs by integrating social and emancipatory perspectives. Even though they include critical self-awareness and social reflective action for self-directed learning, most of their work is dedicated to the critical practice of self-directed learning (Hammond & Collins, 1991). The next section discusses the assumption of personal autonomy and how it informs educators understanding about self-directed learning.

**Personal Autonomy**

As a self-directed learning construct, *personal autonomy* is defined as critical intelligence and the freedom to form one's own thoughts and judgments that are free from bias and prejudice (Candy, 1991). As a moral quality, autonomy is defined as having self-mastery and as having control of one’s emotions. Both of these definitions help inform educators understanding about the self-directed learning framework in that both the freedom to form one's own thoughts and judgments, as well as self-mastery over one’s emotions is critical for the self-directed learner. However, personal autonomy can be carried to such an extreme that it becomes counterproductive to responding to social interaction. Autonomy is viewed as occurring at various degrees in self-directed learners (Candy, 1991).

Self-directed learners come to a learning environment with rules that are either formed through their own autonomous action or that were internalized from their family environment or other social interactions (Candy, 1991). Learners use these rules that are...
either autonomously derived or critically assented to help them form judgments about how well they are progressing with their learning program. Learners should be able to critically assess these established rules and discard those that are counterproductive to helping them achieve their educational goals (Candy, 1991). However, for Long (1989), the degree of learner autonomy was not the critical factor in self-directed learning. Instead, “the critical element is the amount of freedom the learner has to influence the pedagogical process” (Long, 1989, p. 3). Long raised this issue to those adult educators who viewed correspondence courses as meeting self-directed learning criteria without recognizing that the instructor still controlled what the student was required to learn, and the instructor also controlled how learner assessment would be accomplished (Long, 1989).

Therefore, autonomy is a difficult concept to measure within the self-directed learner and it is even harder to determine if a person is acting autonomously or not. Autonomy cannot be discerned only from behavior, but must take into consideration the learner’s intentions (Candy, 1991). Consequently, what may appear as autonomous behavior may in fact have been determined by prior socialization that may have created scripts that become implanted in a person’s way of thinking. The term “autonomy” is further complicated by scholars who do not differentiate the term in relation to the learning context (formal versus non-formal), as well as those who do not differentiate who (teacher or learner) possesses control over the learning transaction. For example, a formal learning context might be a college campus with classrooms and instructors, as opposed to non-formal learning occurring perhaps at a museum, where the learners are free to choose which exhibits they study. Candy (1991) clarifies the confusion resulting from self-directed learning scholars using the term self-directed (autonomous) regardless
of whether learning is occurring in formal learning environments or through self-instruction in the learner’s natural environment. Candy coined the term *autodidaxy* to define learning relying on self-instruction in non-formal learning contexts in contrast to instructor-led learning in formal learning context. From this perspective, there was little that adult educators could do for the autodidact (Candy, 1991). This helps to inform educators’ understanding of self-directed learning because instruction within this framework usually takes place on a continuum between the external instructional domain and the autodidactic domain. In relation to self-directed learning, Candy describes these domains as analogous to two laminated layers, where one layer is concerned with who has control (teacher or learner) and one layer is concerned with how much assistance the learner desires. At one extreme, the autodidactic learner is not conscious of being a student (perhaps a student browsing a museum) and the learner has both ownership and control of their learning. For example, the nascent entrepreneur learning on their own (i.e., autodidactic) might access the SBDC online educational resources without any communication with the program staff to learn about opening a business, while another nascent entrepreneur, operating on a lower end of the continuum for learner autonomy construct, might communicate with the program staff and request additional instructional support. The degree of learner autonomy within the SBDC program is an important construct for self-directed learning and for this study. Autonomy is something that develops throughout adulthood because of our experiences and socialization (Candy, 1991). How a self-directed learner exercises their autonomy also depends on whether the learning takes place in a formal or an informal learning context.

In formal learning situations, self-directed learning is perceived by some scholars as being a matter of choice (Grow, 1991). The staged self-directed learning model
distinguished that teachers could change their approach from highly authoritative on one extreme to one of consultant and delegator on the other extreme, based on the degree of self-directed readiness of the student. For example, if a learner lacks self-confidence related to the learning content or motivation, the teacher could adjust the teaching approach to supply the structure and motivation to help the learner progress. As long as a learner’s situational autonomy is aligned with the teaching style needed given the learning task, then learning should be optimal. *Situational autonomy* was meant to infer that a learner’s degree of self-directed readiness changes based on the degree of relevance of the subject material to the student’s daily life. Consequently, a student normally ranking high on the autonomous learner scale could find themselves in situations where they need an authoritative teacher to maximize their learning (Grow, 1991). As an example, the SBDC business-planning course covers subject material from marketing to financing. Usually SBDC learners ask for more mentor-centered direction when they encounter the financial content of the learning program. This is because very few SBDC learners have any prior experience or knowledge in accounting.

Research grounded in the self-directed framework should address how much instructional assistance the learner desires and how much control the learner really has over the learning transaction (Candy, 1991). For instance, Tough (1979) found that those learners engaged in self-planned learning projects used on average four to five people as resources for their learning. This reinforces the notion that self-directed learners use multiple instructional resources in order to carry out their autonomous learning and that outside assistance is important for the self-directed learner. Candy contends that external instructional assistance is an important aspect of the autonomous (self-directed) learner choice that is made during the learning transaction (1991).
Candy (1991) identified three reasons why it is important to distinguish between the two domains (i.e. autodidaxy or method of instruction). First, mixing autodidaxy with method of instruction can lead to faulty theory building in adult education; second, learners and their assistants might behave differently in the two situations, which will likely change outcomes; and third, the transition from one domain to the other is significant for theory and practice. Accordingly, this complicates the type of research on self-directed learning that can be accomplished because the notion of autodidaxy requires that a researcher be able to understand the mind-set of the learner and their assistants (Candy, 1991).

The next section discusses the role of the self-management construct in relation to the self-directed learning framework.

**Self-Management**

Hersey & Blanchard (1988) view the ability of learners to self-manage their learning as being situational, meaning that the self-directed learner might be able to self-manage the learning project differently in various situational contexts. The implication is that self-management, as a learner attribute should not be thought of as just an intrinsic quality, rather it should be viewed as a context bound quality. Consequently, any research into self-directed learning should account for the context of where the learning transaction is occurring. The ability to exercise self-management over one's learning activity is related to his or her readiness for self-directed learning (Grow, 1991). For self-directed learning, the dimension of learner readiness encompasses ability, competency and motivation. Self-directed learner readiness is also often situational and task specific because very few learners can maintain the same level of readiness over every learning situation to which they are exposed (Grow). This has led some scholars to question if
learner readiness can be enhanced through interventions made in formal learning environments (Houle, 1961). Kasworm (1983) treats the acquisition of self-directed learning competence as a developmental process. From this developmental perspective, formal learning could enhance self-directed readiness by speeding up the acquisition of the three components of self-directed competence. Those components include: 1) the level of skill for engaging learning enquiry, 2) cognitive capacities and competencies, and 3) developed affective and values orientations focused on both the learning inquiry and the meaning of knowledge. Each of these components is viewed as ascending to a higher developmental plane from the previous one, and it is assumed that learners must incorporate qualitative differences of the three components before the learner can progress to the next level (Kasworm, 1983). Other factors affecting self-directed readiness include the instructional and ancillary methods.

The instructional intervention could enhance self-directed readiness by teaching things such as critical thinking, data gathering, and systematic goal setting throughout the curriculum (Wang, 1983). The other approach to enhancing self-directed readiness and competencies is through ancillary methods. These ancillary methods include more indirect approaches such as collaborative learning, contract learning, and independent study (Hammond & Collins, 1991). Hammond and Collins proposed a nine-step program for improving learner self-directed readiness and it includes building a cooperative learning environment, analyzing the situation, understanding learner needs, and evaluating and validating learner needs. Their model is different from other learning planning models because it promotes a continuous integration of critical analysis and critical reflection during each step in the learning process (Hammonds & Collins, 1991).
Scholar research concerning learner readiness has been constrained by attempts to measure the construct of readiness through various instruments (Brockett, 1985). The two scales that are used most prominently to measure self-directed learning readiness have utilized either Guglielmino’s (1977) Self-Directed Learner’s Readiness Scale (SDLRS) or Oddi’s (1986) Continuing Learning Inventory (OCLI) scale. Despite the attempts to measure the multifaceted concept of self-direction, problems are reported with the use of either scale (Brockett). Specifically, Brockett (1985) in reviewing methodological issues of the SDLRS scale stated that there are “problems related to the construction and layout of the instrument and, perhaps more important, the assumptions underlying the way in which the instrument defines self-directed readiness, thus [it] may not be appropriate for adults with relatively few years of formal schooling” (p. 22). No significant relationship has been discerned between a teacher’s self-directed student ratings and the SDLRS scale (Long & Agyekum, 1984). Finally, the SDLRS instrument has been faulted for its methodological weakness in supporting its validity and reliability claims (Field, 1989).

In a similar vein, the OCLI instrument has definitional and methodological problems associated with its intended purpose of measuring self-directed readiness (Merriam et al., 2007). For example, the OCLI scale assumes generalizability of competence as an independent learner. Furthermore, as with the SDLRS scale, the OCLI does not treat independent learning within institutional settings any differently than autodidactic learning outside formal learning environments (Candy, 1991). This implies that the same personality characteristics are important in both formal learning environments and in autodidactic learning situations, which might not be an accurate
assumption (Candy, 1991). The next section discusses the literature concerning how the learner control of instruction construct informs self-directed learning.

**Learner Control of Instruction**

Self-directed learning has, at its core, the central theme that adult learners “exercise power and control over their educational activities” (Brookfield, 2005, p. 49). The autodidactic learner is responsible for planning and carrying out his or her learning program, including deciding which resources to utilize. However, even learning projects that are carried out completely by the learner generally involve some external resources (Candy, 1991; Houle, 1961). Consequently, it is possible for a learner to exercise greater or smaller degrees of control over their learning situation at various points (Candy, 1991). Therefore, the concept of learner control of instruction is best viewed as a continuum as opposed to a unitary concept. For learner control to be evaluated, it is important to look at the various components of learning where learner control can be exercised (Candy, 1991).

The most comprehensive listing of the components of learner control was proposed as a six-part classification system for independent learning. These components include: 1) learner-control over the instructional event, 2) learner-control over evaluation, 3) learner clarification of goals, 4) learner control of diagnosis, 5) learner control of prescriptive decisions and, 6) learner control of motivation (Cottingham, 1977). The powers of learning in adult education are manifested in three sets of events, referred to as establishment events, executive events, and evaluating events (Moore, 1983). Using the previous components and events produces a 3 by 6 matrix that can then be used to classify how each intersection on the matrix is classified as either autonomous or non-autonomous learning. This matrix helps the educational community classify how
autonomous or not an adult education program is with respect to each domain (Moore, 1983). The PRO model provides further insight into this discussion.

The PRO model recognizes the strong relationship between self-directed learning and learner self-direction and it connects these two constructs through the dimension of personal responsibility in the model (Brockett & Hiemstra, 1991). The model posits that any given learning situation can be viewed from both its internal and external dimensions and these dimensions should be viewed as a continuum instead of as an either or situation. For example, any given learning situation can fall somewhere along a range of possibilities as being appropriate for self-directed learning, and a learner’s level of self-direction, can also fall within a range of possibilities. Therefore, the PRO model identifies both the learning situation and the individual learner’s readiness as important issues that need to be addressed before prescribing the learning process that is most appropriate for the student. Optimal learning conditions exist when a balance is struck between the learner’s level of self-direction and when flexibility exists in the social context to accommodate self-directed learning. Learners become frustrated with their learning situation if these two dimensions are not in balance. The PRO model accommodates those learners who might be low on the self-directed readiness scale by acknowledging that they will need a higher degree of teacher-imposed instructional methods to be in harmony with their readiness for self-regulatory learning (Brockett & Hiemstra, 1991).

The next section discusses how issues related to power can influence self-directed learning.

Power
The self-directed learning framework assumes that individuals possess the control and power to exercise decision making over their learning (Brookfield, 2005). However, the self-directed learning framework draws frequent critiques from educational scholars who view it as overlooking dimensions of power (Brookfield, 1995). For example, self-directed learning has been criticized because some of the early foundational research utilized exclusively middle-class, white-male subjects and others found the framework devoid of any discussion concerning the influence that power structures within society have on the ability of the self-directed learner to be autonomous. Until the PRO model was developed, the role of social context was largely ignored in previous self-directed learning models. In Western cultures, when power is discussed in relation to adult education, it usually focuses on the importance of human agency or on the more structural aspects that can influence behavior (Nisbett, 2003). In North America, the human agency view of power is most often discussed because of its practical application.

The human agency definition of power refers to the ability of a person or groups to obtain their desired outcome through the exercising of their power (Nisbett, 2003). This helps to expand our understanding of the self-directed learning models in relation to power because the learner is viewed as an autonomous agent free to exercise his or her own free will and power over their education decision making process. An alternative to the human agency view of power is the structural view of power, that is defined as a supra individual and unseen force that influences behavior (Nisbett, 2003). An example of this structural power would include race, class and gender as influencing forces on an individual’s choice of behavior and thought. These issues are not addressed in the early foundational literature pertaining to self-directed learning, and several scholars have commented on this void (Brookfield, 1995; Hammond & Collins 1991). The structural
view of power includes external forces for change occurring through a productive social process (Nisbett, 2003). Foucault (1980) espouses this approach because he believes that power is exercised through the total agency of everyone participating in social activities and relations. Power viewed through this perspective is always changing, giving adult educators the hope of empowering learners to change power relations through non-violent means (Brookfield, 2005). Of special interest to self-directed learning scholars is Foucault’s discussion of disciplinary power.

Foucault (1980) views disciplinary power as more detrimental to the person than other forms of power (sovereign). An example of disciplinary power practiced in education is the use of examinations as a means to carry out the power dynamic between teacher and student. In relation to the detriments of disciplinary power on the learner, Brookfield (2005) states, “When we monitor our own conduct out of fear of being observed by an unseen, powerful gaze, then the perfect mechanism of control-self-surveillance is operating” (p. 133). Self-directed learning then could be viewed as being a result of this disciplinary power construct, driving the individual learner to constantly look for ways to improve their skills and knowledge through self-directed learning projects. This might be most pronounced through the professional credentialing process, professional examinations and accreditation reviews that mandate learning standards imposed by others (Brookfield, 2005).

In relation to self-directed learning and power, (Brookfield, 2005) states, “Ideology critique calls into question the foundational belief that in self-directed learning adults make free, unfettered choices regarding their learning that reflect authentic desires felt deeply at the very core of their identity” (p. 83). Ideology critique also questions the self-directed learning concept that positions the individual as an autonomous agent able
to make rational and logical choices concerning their learning, while remaining independent of their own culture and history (Brookfield, 2005). In addition, “Ideology critique contends that conceiving self-direction as a form of learning emphasizing separateness leads us to equate it with selfishness, with narcissistic pursuit of private ends regardless of the consequences of this pursuit for others” (Brookfield, 2005, p. 84).

Ideology critique also contends that a learner would be positioned between two contradictory ideologies through the autonomous action of self-directed learners. Consequently, the challenge for the future of self-directed learning is to not allow it to slide into a problematized focus on self-actualization (Brookfield, 2000). Several other scholars also recommended some changes for self-directed learning research.

For example, Merriam and Caffarella (1999) argue for more use of critical dialogue and theory to help enrich self-directed learning research. They also argue against the predominant use of quantitative research that is frequently used as a research method, asserting that self-directed learning is a multifaceted concept requiring multiple research methods. Garrison (1997) was concerned that much of the self-directed learning theory put most of the responsibility for self-directed learning on the learner. This is not viewed as being very practical for adult educators who work in formal educational institutions such as entrepreneur mentors and instructors in the Pennsylvania SBDC program.

Garrison’s comprehensive self-directed learning model is discussed next, in relation to how it helps inform educators’ teaching in formal learning environments.

**Self-Directed Comprehensive Learning Model**

The self-directed comprehensive learning model goes beyond just addressing how the individual learner manages the external learning process (Garrison, 1997). This
model could help educators improve entrepreneurial learning outcomes by addressing the
cognitive, motivational, and instructional resource dimensions that are important to
learners participating in formal educational programs. (Garrison, 1997) defines self-
directed learning as “an approach where learners are motivated to assume personal
responsibility and collaborative control of the cognitive (self-monitoring) and contextual
(self-management) processes in constructing and confirming meaningful and worthwhile
learning outcomes” (p. 18). This model takes a collaborative constructivist view of self-
directed learning. The collaborative constructivist view positions the learner as taking
responsibility for constructing meaning, but at the same time the learner confirms that
new knowledge by participating in dialogue with others. Consequently, learning
outcomes for the individual learner are both personally meaningful and socially valued.
In expanding the conceptual foundation of self-directed learning, Garrison includes
“contextual (management), cognitive (monitoring), and conative (motivational)
dimensions in the comprehensive self-directed learning model” (p. 19).

In the self-directed comprehensive learning model, the self-management
dimension relates to aligning the contextual conditions (e.g. teacher support) in order to
maximize the potential of the learner achieving their educational goals (Garrison, 1997).
A number of related variables are at play in a formal learning environment in this
dimension. They are discussed in more detail in a subsequent section. Self-monitoring in
this model relates to the cognitive and metacognitive process, including monitoring the
learning strategies and having the awareness to think about one's thinking (planning and
adjusting one's thinking based on the learning goal). In this model, the motivation
dimension is viewed as interacting with the self-monitoring and self-management
dimensions. Motivation is an indication of the perceived value and anticipated success of
educational goals at the point that learning is initiated and it has a mediating effect between context (control) and cognition (responsibility) during the learning process (Garrison, 1997). The next section discusses what Garrison defined as self-management in relation to the model.

**Self-Management**

Self-management in this model is defined as a process where, “goal management, learning methods, support, and outcomes are collaboratively and continuously assessed and negotiated” (Garrison, 1997, p. 22). Self-management addresses the extent that the learner has control over his or her educational transaction. The comprehensive model advocates for a collaborative role during the educational transaction between the instructor and student in formal educational settings. This model does not position the learner to engage with his or her meaning making in isolation. Rather, meaning making is done in collaboration with a teacher, mentors, and other actors in the social context through a collaborative constructivists’ paradigm. The teacher provides support, guidance and formal standards necessary for a successful educational outcome. In the SBDC context the guiding aspect of the instructor might include recommending selected online modules for review by the learner before the next individual mentoring session.

Self-management control of the learning in the comprehensive model is concerned with proficiency, resources, and interdependence in the educational setting (Garrison, 1997). Interdependence is the subject norms and standards of the learning institution as well as learner integrity. Each of these dimensions helps educators understand the level of self-management achieved by the learner. Consequently, this model values a balanced approach to assessing knowledge development that involves a collaborative process between educational norms and student choice.
Although this self-management dimension of the model provides a framework for learner autonomy in collaboration with institutional resources (i.e., teacher), it does not clarify how conflicts might be resolved when differing opinions arise between the student and teacher. Another potential shortcoming is that the model assumes that the teacher has the ability and time to work collaboratively in assessing and changing learning strategies. In reality, there are always constraints on time and resources in institutional settings. The next section focuses on the self-monitoring dimension of the comprehensive self-directed learning model that represents the cognitive dimension of student learning.

**Self-Monitoring**

Self-monitoring is defined by Garrison (1997) as “monitoring the repertoire of learning strategies as well as an awareness of and an ability to think about our thinking and modify thinking according to the learning task/goal” (p. 24). Cognitive ability is associated with three self-regulated learning processes: self-judgment, self-observation and self-reaction (Bandura, 1986). Consequently, in this model, students self-monitor themselves through direct observation and self-assessment, and then adjust their learning activities accordingly. This also implies that the learner is responsible for making new meaning through critical reflection, metacognition and through collaborating with others for confirmation about their knowledge development. Self-monitoring includes integrating existing knowledge with new knowledge to ensure that learning goals are being met (Garrison, 1997). Metacognition is also an important dimension in this model.

In this model, *metacognitive proficiency* is defined as the learner’s ability to think critically and reflectively on his or her personal experiences (Garrison, 1997). Research suggests that providing learners with collaborative control over their learning process
improves both self-monitoring and performance (Butler & Winn, 1995). As Garrison (1997) notes, in relation to a student’s learning, the sharing of control between learner and teacher is essential for encouraging students to “assume cognitive responsibility” (p. 26). When a learner takes cognitive responsibility for their learning, they are self-monitoring the learning process, assessing outcomes and developing new learning strategies. Internal feedback for the learner must then be balanced with external feedback from mentors. The learner’s challenge is to use this integrated feedback to construct meaning and to self-monitor his or her learning cognitively and metacognitively (Garrison, 1997). In the educational context, some adult educators question if self-monitoring and self-management needs to follow a sequential order or occur simultaneously.

However, in practice it is difficult for learners to assume responsibility for learning if they do not have some control over the educational practice (Garrison, 1997). Consequently, learners are assumed to need some level of self-management capacity before they can commence with self-monitoring their learning process. Recent research suggests that sharing control over the educational transaction increases learner self-monitoring and overall performance (Butler & Winn, 1995). Yet, the external environment influences self-directed learning or, what Spear and Mocker (1984) call, organizing circumstance. Therefore, monitoring and managing the learning process requires a degree of motivation from the learner. The next section discusses the important effect that motivation has on learning outcomes within the comprehensive self-directed learning model (Garrison, 1997).

Motivation
This model differs in how it treats motivation, as it distinguishes between entering motivation and task motivation. In addition, this model also includes intrinsic motivation as an interacting dimension with other dimensions of the self-directed learning framework. The motivation dimension acknowledges that the affective state of the learner has a moderating effect on the self-directed learning process. *Task motivation* is the ability to persist and focus in learning activities and goals (Garrison, 1997). *Entering motivation* is defined as a reflection on the overall intent that the learner has toward their learning goals. For example, the nascent entrepreneur who enters the SBDC business-planning course may have a high degree of entering motivation, but may have a low degree of task motivation, and this could be one of the variables that explain the discontinuance rate of his or her formal learning before completing learning goals. Improving students' entering and task motivations could inform some adult educators on how to improve entrepreneurial students’ business plan completion rates.

Entering motivation is related to valence (reflecting the level of attraction toward the learning goal) in the context of a formal educational setting (Garrison, 1997). A student’s personal needs (values) and affective state (preferences) reflect the degree of valence. The importance of the learning goal to the student represents the learner’s personal needs. The more the learning activity is perceived as helping the student meet personal goals, the further it will enhance the student’s entering motivation. Affective states are manifested through attitudes about self, goal preference and task (e.g., anxiety). According to Ajzen (2001), attitude involves both an affective and cognitive component, and the affective component may be more accessible to the student than the cognitive component. Moreover, scholars contend that when beliefs and feelings about an object are of opposite valence, emotions tend to be more dominant (Ajzen, 2001); Lavine et al.,
Of particular interest is the role that the affective state (emotions) might play as nascent entrepreneurs engage in the analytical tasks (i.e., break-even analysis, projecting cash flow) involved in developing their business plans. Entering motivation is like a reservoir of adrenalin that can help carry a student through the numerous obstacles that they might encounter on their learning journey while starting a new venture. However, as Garrison (1997) states, “The theoretical challenge is to define the variables that influence the decisional process leading to goal commitment” (p. 27). One of those variables in this self-directed learning model is termed expectancy.

The belief that a learning outcome can be achieved is defined as expectancy (Garrison, 1997). Both personal and contextual characteristics influence goal achievement. *Personal characteristics* (competency) reflect the perceived knowledge, ability, and skills of the student. This is related to self-efficacy and when combined with learner choice of goals and learning environments it influences the decision to enter a learning program (Garrison, 1997). “*Contextual characteristics*, (contingency) reflect perceived institutional resources or barriers as well as ideological and socioeconomic constraints” (Garrison, 1997, p. 27). Thus, competency and contingency assessment indicate the construct of anticipated control. When balanced against personal characteristics of the learner, anticipated learner control is the outcome. Persistence is an important outcome of a student’s task motivation.

The learner’s persistence (i.e., continued engagement with the learning activity) leads to the second phase of task motivation (Garrison, 1997). Task motivation is linked to task control and self-management. It is also conceived as closely aligned with volition. *Volition* refers to the learner’s sustained intentional effort or diligence, which influence persistence and task performance (Garrison, 1997). Kanfer, (1989) in defining this
construct, states that in the “context of learning, volition refers to bringing discordant affective and executional preferences in line with one’s task goals” (p. 381). Volition is viewed as an essential aptitude for academic success (Corno, 1993). This metamotivational function of volition helps sustain learner’s effort toward the achievement of educational goals and serves as a direct link to the self-monitoring and self-directed learning (Garrison, 1997).

In the comprehensive self-directed learning model, extrinsic motivation is viewed as helpful toward increasing intrinsic motivation. “Intrinsic motivation leads to responsible and continuous learning” (Garrison, 1997, p. 28). Thus, it is important for educators to create conditions where learners are empowered to have more control over their learning transaction as a means to foster authentic interest and desire for learning (Garrison). Collaboration and control of one’s learning goals help students become responsible for monitoring and managing their learning behavior. Sharing control of the learning transaction may lead to greater intrinsic motivation and then to greater responsibility. Practicing self-directed learning principles enhances metacognitive awareness and enhances conditions for students who are learning how to learn (Garrison, 1997). Although the comprehensive self-directed learning model addresses the affective dimension of the individual learner, there are still several shortcomings to the model.

For example, the model fails to address issues of power and influencing factors such as social context in relation to the structural definition related to social context (race, gender, class). In fact, the description of self-monitoring in this model could be viewed as an example of the disciplinary power influencing individual behavior (Brookfield, 2005; Foucault, 1980). The model is silent on what the learner or instructor are to do when the learner’s educational goals and the instructor’s goals differ. The failure to
address this type of issue seems a serious oversight in the model and leaves open a host of issues surrounding learner autonomy, control and power. The model seems to describe adult learning as occurring in an idealized practice setting where students have the required self-confidence to negotiate these differences with a teacher and the formal institutional policies, and where the teacher has unlimited time to provide individualized assessment and feedback to every learner.

In the real practice of adult education, there are time constraints that must be considered. In relation to the issue of structural social context, there is no reference to issues of race, class, or gender and how these factors might affect the learner. This is a serious oversight, especially given that the comprehensive self-directed learning framework was developed after being critiqued by a number of adult educational scholars on this issue (Brookfield, 1995). Finally, as the model focuses primarily on the intrinsic motivation brought to the learning transaction by the learner, the model seems to overlook the role that other social interactions and power dynamics might have on the educational outcome. For example, the model neglects to address how power is exercised within the learner’s social context, and if this might influence the overall motivation and educational outcome of the learner. Understanding nascent entrepreneurs' discontinuance in formal learning requires a review of what we know about how entrepreneurs learn.

The next section begins with a review of some competing perspectives regarding entrepreneurship that helps to inform entrepreneurial learning.

**Entrepreneurship**

When you hear the term entrepreneur, you might think about icons like Oprah Winfrey or Bill Gates. You might also think about the owner of your nearby convenience
store where you stop on your way home from work to pick up necessities. In either case, you are correct because entrepreneurship is about using creativity to act on opportunity rather than fame or fortune (Gartner, 2003; Cope, 2005). This section will introduce some core concepts and perspectives which shape the field in an effort to help guide this study centered on nascent entrepreneurial learning discontinuance. The entrepreneurship literature includes three dominant perspectives influencing the scope and integrity of extant research (Cope, 2005). The *functional perspectives* of entrepreneurship are connected with those who view the construct as an economic function. The *personality perspective* is concerned with the individual characteristics and attributions of what it takes to be a successful entrepreneur. The *behavioral perspective* focuses primarily on the entrepreneurial new venture creation process. Defining *entrepreneurship* is one of the greatest obstacles to developing a conceptual framework for the field (Shane & Venkataraman, 2000). “Sometimes entrepreneurship means what the actor is like; sometimes it means what the actor does” (Kopple & Minniti, 2003, p. 81).

“Entrepreneurship starts with being alert to new opportunities. This is a key attribution of entrepreneurs. Entrepreneurship is also about seizing an opportunity by taking innovative actions. Entrepreneurs innovate; that is what they do” (Kopple & Minniti, 2003, p. 82). Thus, alertness leads to newfound opportunities and if the opportunity is feasible, the entrepreneur will take innovative action and open a new firm. The foundation literature for these differing perspectives regarding entrepreneurship constructs is discussed in the next section. A *nascent entrepreneur* is defined as someone who initiates serious activities with an intention to launch a viable business start-up (Reynolds, 1994). These core definitions will provide an understanding for future discussion in this section.
The next section will start by contrasting competing perspectives related to the field. Then, the nascent entrepreneurial learning conceptual literature is explored, followed by a review of several related empirical studies concerning nascent entrepreneurial learning. This entrepreneurship section concludes with a discussion of the intersection between the self-directed learning literature and the entrepreneurship literature.

Now the discussion turns to issues concerning what scholars in the field refer to as the Kirznerian versus Schumpeterian entrepreneurial perspectives.

**Competing Perspectives About Entrepreneurship and Entrepreneurial Learning**

The Kirznerian and Schumpeterian perspectives shape the entrepreneurship field. Both of these economic scholars were Austrian nationals schooled in Austrian intellectual heritage (Kopple & Minniti, 2003). The *Kirznerian perspective* contends that the entrepreneurial process originates from being alert to and acting on opportunity recognition. “In contrast to the Schumpeterian view, Kirzner’s … theory of entrepreneurial alertness and discovery is concerned with understanding how certain individuals secure profits on the basis of knowledge and information gaps that arise between people in the market” (Dutta & Crossin, 2005, p. 430). An alert entrepreneur has the ability to adjust pricing and maximize profits over competitors by using his or her knowledge of the market. For example, a chef might realize that local customers like Mexican food, but that there is no one providing authentic Mexican cuisine. In response to this, he decides to fill the market need by opening a restaurant to meet that market niche. In contrast, the Schumpeterian perspective of entrepreneurship positions the entrepreneur as creating opportunity through a process of *creative destruction* (Carayannis, et al., 2006). The notion of creative destruction contends that innovation
comes about in business by managers’ purposely-destroying business processes and practices in an effort to create new and improved processes and products (Carayannis, et al., 2006; Sari & Hakan, 2009). “In Schumpeter’s view, opportunities emerge as a process of creative destruction. Entrepreneurs do not discover opportunities; rather, they create them by taking advantage of technological change, of an innovation occurring in the economy” (Dutta & Crossin, 2005, p. 430).

As an example, entrepreneur Chad Hurley, (developer of YouTube.com) and his college roommate realized that people enjoy sharing video files with each other via email, but that people often had difficulty opening the video file formats produced by specialized software. These young entrepreneurs decided to create the website YouTube.com, where everyone can share and view homemade videos around the world, eliminating the need for end users to have compatible software. The old process of sharing video is destroyed and a new process of sharing is created. These two competing perspectives about entrepreneurship help to inform educators understanding about nascent entrepreneurial learning (Carayannis, et al., 2006; Sari & Hakan, 2009).

The Kirznerian perspective focusing on the entrepreneur as an individual who sees the opportunity because they possess information about the marketplace that others do not possess most closely resembles how the majority of SBDC learners initiate their first business, and, therefore, this review will focus more on the Kirznerian perspective. In relation to our understanding of entrepreneurial learning, (Deakins, 1999) states “our limited knowledge and understanding of the interaction of learning and the entrepreneurial process remains one of the most neglected areas of entrepreneurial research” (p. 23).
Supporting the rationale for this study is the conclusion by several scholars that we know very little about how nascent entrepreneurs learn during the start-up phase and yet this area of inquiry is deemed essential for better understanding of entrepreneurial emergence (Harrison & Leitch, 2005). Opportunity recognition is perceived as an overall encompassing construct describing essential dimensions of the nascent entrepreneurial process. Opportunity recognition occurs at the beginning of the new venture creation process and it is often viewed as a recurring process in a typical business life cycle (Bygrave, 1989; Bygrave & Hofer, 1991; Christensen, Madsen & Peterson, 1994). A description of opportunity recognition involves “the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered and evaluated” (Shane & Venkataraman 2000, p. 218). There are several competing views about how the opportunity recognition process unfolds.

Some view opportunity recognition as a systematic planned approach (Vesper, 1996) and/or because of a well thought-out strategic planning process (Timmons, 1990, 1994). Yet, some have discovered that nascent entrepreneurs often use more of an intuitive or sensemaking process to discern opportunities (Hills, 1996). This helps to inform educators’ understanding of entrepreneurial learning because not all entrepreneurs are going to be well-suited for the more systematic strategic planning process that most closely resembles the SBDC learning program. This mismatch over learning preferences could contribute to learning discontinuance. Discovery of opportunities is also viewed quite differently amongst entrepreneurial scholars with some reporting that entrepreneurs use a style of discovery reflecting a systematic screening of new ideas, and other scholars find that entrepreneurs discover opportunities accidently through informal approaches (Teach, Schwartz & Tarpley, 1989).
Several scholars have contributed to the opportunity recognition process literature by proposing conceptual models for the construct (Bhave, 1994; Gaglio & Taub, 1992; Long & McMullun, 1984; Lumpkin, Hills & Shrader, 2004; Singh, 2000). For example, several scholars reported that the typical opportunity recognition process for the entrepreneur occurs over four stages: 1) the pre-recognition stage, 2) the Eureka experience, 3) the continued development and testing of the idea, and 4) the decision to proceed (Gaglio & Taub, 1992). This helps to inform our understanding of entrepreneurial learning discontinuance for this study because the stage of the opportunity recognition process could contribute to learning discontinuance. Some learners’ may be discontinuing their learning program because they have reached the fourth phase in the process and have made a decision to proceed or to not proceed with the business launch based on having completed their feasibility testing phase of the business model. In addition, the opportunity recognition process involves several learning steps over time instead of a one-time step (Hills, 1996). One new idea tends to lead to several other opportunities being recognized, reflecting that opportunity recognition involves several iterative steps, as opposed to a cognitive breakthrough that stems from an enlightenment experience (Hills & Singh, 2004). Other models focus on other factors affecting the opportunity recognition process.

Several scholars view the opportunity recognition process as being enhanced by external factors, including social networks and personality (Christensen, Madsen, & Peterson, 1994). However, others view the process as being more under the control of the entrepreneur because of the time and effort required to bring an idea to market (Long & McMullen, 1984). In relation to the factors influencing opportunity recognition, Hills & Singh (2004) state:
A confluence of factors, including both uncontrolled factors (culture, social, economic and job forces, and personality) and controlled factors (alertness, job selection, study, moonlight venturing and lifestyle) affect the ability of a potential entrepreneur to recognize the opportunity and the evaluation and elaboration phase (strategic planning) occurs after the recognition of the opportunity (p. 261).

After the initial idea is recognized, the opportunity is improved upon and evaluated before the decision is made to proceed (Singh, 2004). This brings into focus the importance of both individual characteristics of the learner, as well as the external confounding factors in the learner’s life, such as social networks, social status and lifestyles that affect learning for the nascent entrepreneur. Still other entrepreneurial scholars advocate for the importance of prior experience as a differentiating factor with successful entrepreneurs.

Entrepreneurs need to be aware of market conditions that can help them recognize opportunities and that experience in specific industry segments helps to enhance their awareness. Consequently, prior experience in the industry that the entrepreneur is entering can help them identify customer needs and desires (Singh, 2000; Vesper, 1996). This experience might result in relationships with beneficial industry contacts and valuable social networks that can prove helpful in the new venture creation process (Burt, 1992; Johannisson, 1990; Singh, 2000). Market and technological knowledge can also provide an entrepreneur with the insight for recognizing new opportunities in the market place (Christensen & Peterson, 1990). This helps to inform our understanding of entrepreneurial learning because it highlights the importance of prior experience and knowledge gained over a lifetime as contributing factors to the entrepreneurial learning
process. Entrepreneurs with enhanced social networks (e.g., industry and business contacts) tend to identify more opportunities than those working alone on a new venture (Hill, Lumpkin & Singh, 1997). These social networks are often defined as social capital (strong ties with a personal support network and the weaker ties with the resource provider networks) in the entrepreneurial literature (Carter & Brush, 2004). Therefore, entrepreneurial learning discontinuance could be influenced by the degree of social capital that a learner has accumulated over the span of their life.

Alertness is also posited as a unique personal characteristic of entrepreneurs that may be related to cognitive (psychological) factors (Gaglio & Taub, 1992). Overall, opportunity recognition is viewed as a critical construct for the new venture process. There is ample evidence to suggest that this construct occurs continually over time in successful businesses. This overview of the competing views regarding entrepreneurship forms a foundation for a discussion of several conceptual pieces related to nascent entrepreneurial learning that help to inform this study.

Nascent Entrepreneurial Learning Conceptual Literature

For learning to occur throughout the nascent entrepreneurial process, the entrepreneur needs to be alert to new opportunities, and then act on those opportunities following his or her discovery (Koppl & Minniti, 2003). Entrepreneurial learning occurs at the point of discovering the new opportunity. As action is taken on that discovery, new knowledge is gained. Therefore, if some learners never act on existing knowledge, they deprive themselves of finding new opportunities. Discontinuance with learning could then be partially related to a learner’s failure to act on existing knowledge. The Kirznerian perspective on entrepreneurship influences other scholars’ thinking about entrepreneurial learning. However, Kirzner actually never offered a theory for alertness
or a theory for entrepreneurial learning (Koppl & Minniti, 2005) although, another Austrian economist did offer a comprehensive perspective about entrepreneurial learning. Harper (1994, 1996, 1998) contends that an entrepreneurial learner’s locus of control provides a framework for the entrepreneurial alertness construct. A person with an internal locus of control is defined as someone who believes that events are “contingent upon his or her [SIC] own behavior or upon his or her [SIC] own permanent characteristics” (Rotter, 1966, p. 1). Those entrepreneurial learners with an internal locus of control believe that events are determined by their behavior or personal characteristics. Learners with an external locus of control view their actions as less effective in obtaining desired outcomes and they view powerful others as having more control over their fate. However, studies indicate discrepancies between findings regarding the locus of control construct and entrepreneurship (Kroeck, Bullough & Reynolds, 2010).

Harper contends that an internal locus of control improves entrepreneurial alertness and increased alertness leads to an increase in incidental learning. Harper also contends that social conditions can promote alertness. Harper’s framework informs educators understanding of entrepreneurial learning and it helps to connect this framework with the self-directed learning framework that contends that learners with greater internal locus of control demonstrate increased motivation and persistence with their learning (Garrison, 1997). Harper’s central thesis is that “an environment of freedom is more likely than other environments to generate internal locus of control beliefs and acute entrepreneurial alertness” (1998, p. 253). Because freedom (autonomy) is such a central concept with self-directed learning, this further confirms a similar theme between the two learning frameworks. Harper contends that entrepreneurial learning
occurs through a growth of knowledge process that is based on the philosophy of Karl Popper (1959).

Popper’s perspective on learning is similar to the scientist who acts as problem solver (Kopple & Minniti, 2005). Harper’s “growth of knowledge” concept is similar to that of Popper’s scientist analogy where different hypotheses are tested for a possible solution. Scientists use hypotheses to test each premise to find the best solution. As the scientist gains new knowledge and information, the original problem might be redefined into a new hypothesis. Harper views this scientific process of conjecture and refutation as being similar to the entrepreneurial opportunity recognition processes where the entrepreneur begins with the alertness to a new discovery (conjecture). The entrepreneur then tests these conjectures by conducting market research or by talking with potential customers. Entrepreneurs learn new information through the testing of the conjecture, and then they revise the original business concept as their growth in knowledge develops. This view of entrepreneurial learning has also been referred to as the fallible error-elimination process that is influenced by market conditions and constant change (Kopple & Minniti, 2005).

One other entrepreneurial learning scholar takes a slightly different view of the scientific process of conjecture and refutation for learning. Choi (1993a, 1993b, 1999) proposes a decision-making model that helps inform educators’ understanding of entrepreneurial learning, and it uses a similar approach as Harper, of conjecture followed by refutation, to explain how learning occurs. Choi’s framework contends that entrepreneurs come to an understanding of their environment through an inferential process. The entrepreneur relies on information and other resources to help make sense out of disconnected dimensions of his or her business model. The entrepreneur takes
action and observes the outcome and learning occurs. Choi refers to this entrepreneurial process as one of sensemaking that leads to a paradigm: “Sensemaking is defined as the ongoing retrospective development of plausible images that rationalize what people are doing.” (Weick, Sutcliffe & Obstfeld, 2005, p. 409). The learner’s prior experiences and an understanding of other things help to guide the decision-making process and influence a learner’s paradigm. When faced with uncertainty, the entrepreneur relies on these paradigms to make a decision on how to act. When a previous paradigm does not produce the desired result, then a new paradigm is developed. The paradigm that produces the desired outcome tends to become a part of a learner’s behavioral pattern (routine) for daily decision-making processes. These paradigms are then shared with others in the entrepreneur’s network serving as a connection between people and eventually, the paradigm becomes a social convention (an accepted societal way of doing things).

However, these paradigms also make it more difficult for the learner to innovate over time. For example, entrepreneurs go against accepted societal conventions when they try out new paradigms. If the new paradigm produces improved profits, then other entrepreneurs will follow them and new societal conventions are formed. This process of entrepreneurial discoveries and their eventual adoption by the rest of society is referred to as a social learning process (Kopple & Minniti, 2005). Societal influence on learning is sometimes ignored in self-directed learning models and other entrepreneurial learning frameworks and this could be a major shortcoming. Other contributions to the entrepreneurial learning framework include those who view learning as an interpretation.

Butos and Koppl (1999) rely on Hayek’s evolutionary theory of mind discussed in the classic work completed in 1952, The Sensory Order. Some view this theory as
resembling complexity theorists (Holland, Holyoak, Nisbett & Thagard, 1986). Butos and Koppl’s (1999) learning framework starts with the premise that entrepreneurial knowledge is an interpretation. Therefore, learning is not so much a form of seeing opportunity as it is an act of interpreting the current situation. Two entrepreneurs will interpret the same situation differently because of their unique mental model. After interpreting the situation, the entrepreneur takes action in the marketplace based on the interpretation of the situation. Some entrepreneurs make interpretations and take subsequent actions that produce profits, while others take actions that produce financial losses. The marketplace becomes a reinforcing agent for the rules that entrepreneurs adopt for decision-making. Those actions that produce profits become rules that the entrepreneur adopts to help inform habits and future reactions to different market conditions. This focus on the attention dimension fits very well with Kirzner’s concept of alertness. Attention is aimed at things the entrepreneur is on the lookout for and that can be perceived easily when things happen. Therefore, entrepreneurial learning does not occur as an “aha” moment, but more as a manner of learning that stems from what the entrepreneur is prepared to learn. One implication of this framework is that adult educators could help entrepreneurs practice adopting new rules to help integrate new mental models through practicing different scenarios through simulations and social dialogue with others.

A shortcoming of these three entrepreneurial learning frameworks is that they provide little insight for adult educators regarding how to improve the learning of the individual entrepreneur. Another potential shortcoming of these frameworks is that they seem to position the entrepreneur learner as one who is constantly reacting to situations and outcomes from specific actions taken. This would appear to leave out the possibility
that an entrepreneur may be able to learn proactively in unique and creative ways to formulate a proactive action plan. Moreover, these frameworks are silent on who has control of the learning situation, and some frameworks seem to neglect any role of a mentor or instructor in the process. Therefore, many aspects of entrepreneurial learning are lacking in terms of theory building (Cope & Watts, 2000; Deakins, 1996; Rae & Carswell, 2000). Because of this, a recent conceptual piece attempted to construct a dynamic learning perspective of entrepreneurship.

This dynamic entrepreneurial learning perspective builds on the three dominant theoretical approaches to entrepreneurship research (functional, personality, behavioral) (Cope, 2005). “The concept of a dynamic, temporal phase of entrepreneurial learning serves to demonstrate the complex connections between two pertinent stages of learning—prior to start-up and learning during the entrepreneurial process” (Cope, 2005, p. 377). Each nascent entrepreneur approaches the start-up phase with a unique set of skills, experiences and knowledge that represents an entrepreneurial preparedness (Harvey & Evans, 1995; Reuber & Fisher, 1999). The dynamic learning perspective contends that learners interpret their situation and current experience based on their learning history (Boud, Cohen, & Walker, 1993). Several scholars have emphasized the need for nascent entrepreneurs to look backward and inward in order to reflect on the relevancy of their past experiences, and also to look retrospectively at their readiness to start a business (Harvey & Evans, 1995). Other scholars believe that it is important for the entrepreneur to assess their past experiences in relation to the business opportunity presented, and they need to assess the relevancy of the social groups that they are involved with in terms of the relevancy of helping to carry out the new start-up (Gibb & Ritchie, 1982; Katz, 1992; Kolvereid, 1996).
Each nascent entrepreneur enters the start-up phase with a stock of prior knowledge to help them be successful, and launching a business represents a substantial learning experience (Gibb & Ritchie, 1982; Rae & Carswell, 2000). The type of content that nascent entrepreneurs need to learn to be successful in business requires additional research and is beyond the scope of this literature review. However, several scholars have proposed that nascent entrepreneurial learning content should at a minimum include management succession, pitfalls of growth, industry specific content, learning about entrepreneurial networks, learning about oneself, and learning about managing relationships (Cope, 2005; Sexton, Upton, Wacholtz, & McDougall, 1997). The dynamic learning model proposes that the learning process is also an important dimension of the model (Cope). Prior research concerning the entrepreneurial learning process (i.e., accounts of how entrepreneurs learn) includes descriptions such as action orientation, learning by doing, experiential learning, discovery and explicit problem solving (Cope & Watts, 2000; Deakins & Freel, 1998; Smilor, 1997; Young & Sexton, 1997). Other scholars have recently discussed the important role of critical learning events providing insight into the dynamic entrepreneurial learning perspective.

Critical learning events have proven to be a valuable learning experience and process for entrepreneurs (Cope, 2001; Deakins & Freel, 1998; Rae & Carswell, 2000). Critical learning is defined in the adult education literature as those events, jolts and crises that create a learning episode (i.e., seminal periods of learning forming their approaches to life and work) that can change one’s underlying assumptions and values (Argyris & Schon, 1978; Mezirow, 1991). These events lead to a change of mindset in the learner (Applebaum & Goransson, 1997). Moreover, these critical learning events could help the entrepreneur change habitual rules that they have relied on in the past to
new rules and paradigms that may prove more rewarding and beneficial (Marsick & Watkins, 1990). These critical events influence the affective dimension of entrepreneurial learning. Critical learning events can cause severe emotional trauma and stress, especially if these events challenge long-held perceptions about oneself (Cope, 2001; Mezirow, 1991). Even when entrepreneurs make mistakes and learning occurs through “hard knocks,” it is important not to forget the important learning that can occur during these lessons (Cope, 2005). Because entrepreneurs are deemed as action-oriented, Bird (1988) contends that it is important not to conceive of entrepreneurs as simple doers that are more productive in doing than in dreaming or reflective sensemaking.

The Western construct of sensemaking helps to inform our understanding of entrepreneurial learning on a deeper level as compared to when it was previously mentioned and discussed in the conceptual entrepreneurial learning section. In relation to entrepreneurial learning, sensemaking is about the interchange and influence between action and interpretation without the influence of evaluation, “The language of sensemaking captures the realities of agency, flow, equivocality, transience, re-accomplishment, unfolding, and emergence, realities that are obscured by the language of variables, nouns, quantities, and structures” (Weick, Sutcliffe & Obstfeld, 2005, p. 410). Sensemaking helps to inform our understanding of decision-making and learning. It also helps to inform our understanding of how entrepreneurs who are prone to action orientation learn to interpret while they are engaged in action. Sensemaking is an issue concerning language and communication that helps to shape the future. “Situations, organizations, and environments are talked into existence” (Weick, Sutcliffe & Obstfeld, 2005). This could help entrepreneur educators better understand the business planning
process where entrepreneurs use language and symbols to convince themselves and investors that their business model will be successful.

Business leaders also learn through gradual and tacit learning where new evidence slowly erodes a long-held belief about a particular issue (Burgoyne & Hodgson, 1983). Moreover, managers often draw on their background consciousness when dealing with events and this background consciousness can change gradually with the daily inflow of new information or when presented with evidence that reinforces the need for a different approach to a problem or issue. This process can create the same change in mindset as critical learning events (Burgoyne & Hodgson, 1983). The dynamic entrepreneurial learning perspective enhances our understanding of entrepreneurial learning by conceiving that critical reflection, interpretation, and bringing forward lessons learned from experience are part of one’s generative learning process.

*Generative learning* is defined by Gibb (1997, p. 17) as “learning which embodies the capacity to create and bring forward experience, rather than wait for (and learn from) it.” Thus, generative learning involves a retrospective and prospective dimension. Generative learning provides insight about entrepreneurial learning through the cognitive process that allows entrepreneurs to be abstract and generalize across various contexts, as well, as to recognize patterns, and connect relationships between various events and situations (Cope, 2005). There are both adaptive and proactive forms of generative learning (Cope, 2001). *Adaptive generative* learning is defined as cumulative learning experiences that become our subjective stock of knowledge (Minniti & Bygrave, 2001). *Proactive generative* learning is defined as a learning process that enables the entrepreneur to become aware of potential critical events through being attuned to cues that might lead to a future critical event (Cope, 2001). Thus, learning the benefits of
reflective learning is lost unless they are connected with action and commitment (Boud, Cohen & Walker, 1993). It is important to acknowledge that the entrepreneur can bring forward learning that is not always effective, as they can falsely connect action that initially brings about a desired result which actually becomes an error in judgment when that same action is applied across different contexts or time periods (Huber, 1991; Minniti & Bygrave, 2001). The final dimension of the dynamic entrepreneurial learning perspective includes the affective and social mediating influence on learning.

Adult educators have long recognized that learning is influenced by certain contexts and that it is an intrinsically social process (Brocket & Hiemstra, 1991; Burgoyne, 1995; Candy, 1991, Fox, 1997; Garrison, 1997). Entrepreneurial scholars have started to conceptualize how the social dynamic affects learning (Deakins et al., 2000; Hamilton, 2004; Rae, 2002; Taylor & Thorpe, 2000). The learning environment of entrepreneurs is embedded within the business relationship network that includes customers, employees, partners, suppliers, bankers, peers, partners and family (Gibb, 1997). Entrepreneurial learning is influenced by the social characteristics of these business relationships and the critical incidents that create an entrepreneur’s overall experience (Boussoura & Deakins, 1999; Taylor & Thorpe, 2000). Of particular interest is the role that social relationships with domestic and business partners play in facilitating the reflective learning for the entrepreneur (Boyde & Gumpert, 1983). This is of interest because these relationships have been reported as causing the most stress and disappointment for the entrepreneur (Boyd & Gumpert, 1983; Cope, 2001). Emotions are also an important factor with new venture creation.

The role of entrepreneurs’ emotions is of particular interest to entrepreneurial educators. “Given the significance of affect for judgment and decision making, it is
important to understand how affect may influence the generation of entrepreneurial ideas, and intentions to pursue these ideas” (Hayton & Cholakova, 2012, p. 42). Affect may be a source for new venture ideas, and may explain the variation in how entrepreneurs feel about those ideas. Thus, affect might influence entrepreneurs intentions to pursue those new venture ideas (Hayton & Cholakova, 2012). Entrepreneurs use intuition to make decisions and emotions are known to be one of the key drivers for intuitive decision making (Epstein, 1994; Kahneman, 2003). Research has “found strikingly different effect of two emotions of the same positive valence—happiness and hope—on the risk perception of serial entrepreneurs” (Podoynitsyna, Bij, & Song, 2012, p. 133). When entrepreneurs experience conflicting emotions based on different cognitive assessments, their risk assessment is affected (Podoynitsyna, Bij, Song, 2012). Positive affect may also influence nascent entrepreneurs’ ability to form successful social networks. Specifically, research on affect and emotional self-management suggests that positive affect may enhance the ability to develop rewarding social exchange relationships. “Therefore, affect may not only influence opportunity idea development directly through individual cognitive processes, but also more indirectly through its influence on developing channels through which opportunity relevant information may be accessed” (Hayton & Cholakova, 2012, p. 59)

In summary, the dynamic entrepreneurial learning perspective contends that the entrepreneurial learning is a dynamic process of critical reflection, awareness, association, emotion and social interaction (Cope, 2005). The building blocks offered through these conceptual pieces concerning entrepreneurship borrow concepts related to adult learning theory, including social learning frameworks, transformational learning and social constructivist perspectives. What is largely missing in much of this conceptual
discussion of nascent entrepreneurial learning is the role that critical learning paradigms might have on entrepreneurial learning perspectives. Questions remain concerning how an entrepreneur can learn effective knowledge to better equip oneself for the entrepreneurial role.

The various learning challenges that occur during different phases of the entrepreneurship process still need further investigation in this study. “Further inquiry is needed to appreciate the contextual dimensions of the entrepreneurial learning task, particularly in relation to the various arenas in which entrepreneurial activity takes place” (Cope, 2005, p. 390). Nonetheless, Cope (2005) has provided the dynamic entrepreneurial learning perspective by synthesizing existing literature into understanding entrepreneurial learning as a dynamic process occurring in phases and processes that interact with the entrepreneur’s characteristics (Cope, 2005).

The next section synthesizes various empirical studies that help inform our understanding of nascent entrepreneurial learning.

Nascent Entrepreneurial Learning Empirical Studies

Studies concerning the usefulness of business planning in the entrepreneurial process demonstrate positive results in most research. Business planning has been shown to help keep entrepreneurs on track by providing milestones for the entrepreneur to achieve (Robinson, 1984; Schrader, Taylor, & Dalton, 1984). Business planning can reduce the chance of delays in opening a business by ordering milestones that need to be accomplished such as permitting, zoning, and licensing (Bracker, Keats, & Person, 1988). The completion of the business plan also demonstrates legitimacy of the business for bankers and financial backers to the business (Bird, 1992; Delmar & Shane, 2004; Honig & Karlsson, 2004). Previous studies have indicated that those nascent entrepreneurs who
completed a business plan were less likely to discontinue the business creation process (Delmar & Shane, 2003; Delmar & Shane, 2004; Honig & Karlsson, 2004; Reynolds, 2007). Liao and Gartner (2007/2008) provide the most detailed study on factors relevant to this study. They found that entrepreneurs who were currently active in business, as compared to those who had discontinued their business, were significantly more likely to have completed a formal business plan early in the venture creation process, and they were significantly more likely to have participated in a government sponsored business learning program. Engaging in business planning increased the probability of starting a business by a factor of six. Prior start-up experience, managerial experience, and specific industry experience were significant factors for those nascent entrepreneurs who continued on to start a business. Gender also had significance in this study with males being more likely than females to still be active in business (Liao & Gartner, 2007/2008).

These studies also highlight the need for this study to consider if gender and other factors such as education, prior start-up experience, and managerial experience are contributing factors to entrepreneurial learning discontinuance. This leads to several studies that inform educators understanding of why some nascent entrepreneurs might not elect to participate in formal entrepreneurial education programs.

An entrepreneur’s learning challenges and experiences during his or her primary and secondary education may limit his or her willingness to participate in formal educational programs as a nascent entrepreneur. Martin and Halstead (2004) studied microenterprise owners in a qualitative study using repeated interviews as a method of inquiry. Microenterprises are defined as businesses employing fewer than ten employees. This study found this group of owners to be the least likely to pursue learning and external assistance from entrepreneurial education programs. Part of this reluctance to
participate with formal learning may be due to prior unfavorable experiences in formal educational settings. In fact, they found that 80% of these owners reported they did not enjoy or hated their primary and secondary school experience. Another adult education scholar found that women are often deterred from participating in short-term entrepreneurial education programs.

Fenwick (2002) uses a post-structural framework to inform our understanding of how women entrepreneurs work through discursive conflicts of subjectivity. The analysis of these women entrepreneurs' narratives found that women entrepreneurs report daily triumphs in negotiating their identity, and that they value the family relationships that are often overlooked in media stories about successful women entrepreneurs. They often experience good mother messages creating a continuous conflict resulting from ambiguous societal propaganda about what it means to be a good mother. Among other findings, the study concludes that many government-sponsored entrepreneur educational programs force women into writing business plans that are counterintuitive to their values and ways of meaning making (Fenwick, 2002).

Critical incidents and critical reflection can play a major role in helping entrepreneurs learn (Johannisson, Landstrom, & Rosenberg, 1998; Cope & Watts, 2000; Cope, 2003, Deakens & Freel, 1998; Rae & Carswell, 2000; Van den Broeck and Willem, 2007; Wijbenga & Witteloostuijn, 2007). Three factors influencing the entrepreneurial learning process are discussed in the entrepreneurial studies: the entrepreneur’s career goals (Katz, 1994), and the results of prior business decisions (Cardon & McGrath, 1999; Johannisson & Madsen, 1997; Minnitti & Bygrave, 2001). These studies imply that entrepreneurs often employ a disjointed learning style that makes it difficult for the learner to use critical reflection as a means to reach higher levels of learning.
Entrepreneurs often have inadequate self-assessment skills, which is further compounded by the learner’s reluctance to seek help from the educational small business channels due to their self-reliant nature. These studies imply that mentors, support networks, and traditional courses are helpful to those entrepreneurs who seek to turn experiences into learning moments. These studies also imply that those entrepreneurs who seek out more educational learning channels tend to report an increased number of learning events.

Prior studies have noted the importance of heuristics in entrepreneurial learning and decision-making.

*Heuristics* (i.e., employing mental shortcuts) and cognitive biases in decision-making can potentially help to enhance educators understanding about entrepreneurial activity (Schenkel, Matthews & Ford, 2009. For example, if entrepreneurial learning is viewed as a scientific problem-based situation as previously conceptualized, then an entrepreneur may experience a need for closure resulting from the numerous questions raised concerning the business-planning phase. This need for closure produces two tendencies according to Kruglanski and Webster (1996): the *urgency tendency* and the *permanence tendency*. According to this construct, individuals who operate in highly uncertain and ambiguous environments (e.g., entrepreneurs) might experience the urgency for a quick decision to help reduce stress caused by ambiguity during the business planning process. Those individuals with a high degree of need for closure use heuristics to influence their decision-making (Schenkel, et al., 2009). In the nascent entrepreneurial process, this could cause a tendency to mentally seize and freeze on the information gathered during the business planning process. This seizing and freezing makes it more likely that the entrepreneur will revert to their pre-existing knowledge structures or simplifying mechanisms to decide on the multiple decisions that they need.
to make concerning the business launch. This study found that the cognitive preference for predictability (the permanence tendency) favors entrepreneurial activity. This urgency and permanence tendency construct may help inform why some nascent entrepreneurs make decisions to start or not start the business. In addition, this study also found that entrepreneurs exhibit a much higher degree of confidence than their counterparts in management positions in corporations do. Schenkel et al., (2009) state:

In sum, individuals possessing a high need for closure—that is preferring order and predictability to continued ambiguity (Webster & Kruglanski, 1994)—tended to engage in nascent entrepreneurial activity to a greater extent than individuals with a low need for closure, irrespective of their age, gender, position in family birth order, or unique personal knowledge base (p. 65).

Moreover, heuristics and biases in relation to cognitive decision-making are thought to be valuable in entrepreneurial activity because these cognitive dimensions encourage the decision maker to launch a new venture that might never materialize if the entrepreneur had to wait for more complete information (Busenitz & Barney 1997). The use of heuristics and cognitive biases also makes it more likely that the entrepreneur will be overconfident about the risk associated with their new venture (Palich & Bagby, 1995; Schenkel et al., 2009). This overconfidence can result in increased self-efficacy. In other words, the need for closure combined with heuristics and cognitive biases may create a situation where the entrepreneur finds it stress reducing to make a decision to launch before the formal SBDC educational program is completed. Thus, entrepreneurial learning discontinuance may simply be the outcome of an entrepreneur making an early
decision to either launch or not launch the business. Other scholars have focused on how an entrepreneurial mindset can be enhanced through formal education experiences.

Learning episodes throughout a lifespan contribute to building an entrepreneurial mindset. A person’s entrepreneurial mindset is formed throughout a lifetime of achieving difficult goals, through various career experiences, and through the influence of a particular person (i.e. mentor) (Rae & Carswell, 2000). Entrepreneurs learn self-efficacy, personal values, and goal setting at an early age. Self-efficacy relates to a learner’s selection of activities, one’s persistence, effort to perform certain activities, and emotional reactions when confronted with setbacks (Bandura, 1997; Lent, Brown, & Hackett, 1994). Individuals with higher levels of entrepreneurial self-efficacy usually have higher entrepreneurial intentions (Chen, Green & Crick, 1998; De Noble, Jung & Ehrlich, 1999; Scott & Twomey, 1998). The need for achievement on the part of the entrepreneur is a strong motivating factor for the entrepreneurs in these studies. Other common themes in these studies included the need for an entrepreneur to be constantly challenged, sharp of thought, and ready to persevere through difficult decisions, a drive for personal ownership, and a value for others. Other studies found that mentors can play a critical role in the entrepreneurial process.

Mentors can help entrepreneurs reflect on experiences and critical incidents through a dialogic process that helps make tacit knowledge explicit (Cope & Watts, 2000; Cope, 2003, Fenwick, 2004; Rae & Carswell, 2000; Van den Broeck & Willem, 2007). Mentoring is a role often filled by an older family member or a more experienced business owner, and the entrepreneur should have confidence to confide in the mentor. Similarly, other scholars concluded that entrepreneurs with partners and social networks improve their ability to reflect on past strategy and mistakes while enhancing their ability
to access resources (Cook, Belliveau & Sandberg, 2004; Deakins & Freel, 1998).

Knowledge creation is best achieved when tacit and explicit knowledge emerges in
dialogue (Nonaka & Takeuchi as cited in Johannisson, et al., 1998). These studies all
reinforce the important effect that dialogue and reflective practice have on
entrepreneurial learning, and they reinforce the critical need for entrepreneurial educators
to be viewed as individuals who can be trusted. Other studies have considered how
entrepreneurial intentions play a role with entrepreneurial decision-making and this
construct could help inform this study.

Much has been written concerning entrepreneurial intentions, and it is a
frequently used construct in entrepreneur research (Bird, 1992; Sequeira, et al, 2007;
Choo & Wong, 2006). Intention is the single best predictor of entrepreneurial behavior
(Azjen & Fishbein, 1975; Azjen, 2001; Krueger & Carsud, 1993). Furthermore, external
employment circumstances such as social and economic conditions, redundancy,
recession, unemployment, blocked promotion, and the need to earn a reasonable living
make a direct impact on the prospective entrepreneur’s attitudes and intentions (Secrest,
1975; Kirchoff, 1991). If these social and economic conditions shaping attitudes and
creating intentions are intense, then this leads the nascent entrepreneur to take action and
start the business (Brockhaus & Horwitz, 1986). The measurement of individual
entrepreneurial intent suffers from disparate measurement and a lack of a rigorously
developed psychometric instrument scale to measure this often used and ill-defined
construct (Autio, Keelyey, Klofsten & Ulfstedt, 1997). Even though business
opportunities may abound, not all of these opportunities will result in new businesses
being launched because as Kruger (2007) states, “behind entrepreneurial action are
entrepreneurial intentions”, (p. 124). Not everyone will have the same level of intentions,
even after they discover a new business opportunity. Previous studies have found that nascent entrepreneurs were motivated by intrinsic rewards (i.e., satisfaction of being one’s own boss, being more in control of one’s own destiny, and having ultimate responsibility for the success or failure of the business) and extrinsic rewards (i.e., financial independence, profit) are of less importance to the entrepreneur’s decision to launch a business (Bird, 1989). Intrinsic motivation and other factors can enhance entrepreneurial persistence.

Persistence is connected with intentions, actions, and motivation to start a business. Persistence can be affected by external factors. For example, non-starters of a business differ significantly from those who do start a business on such factors as family commitments, security of present employment, and perceptions of the general business climate (Finnerty & Krzystofik, 1985). Persistence with launching a business is affected by other internal and external factors such as fear of debt, fear of failure, difficulties in obtaining financing, regulation, and taxation (Robertson et al., 2003). Three antecedents affecting an entrepreneur’s intentions and persistence to finish the business plan are: 1) perceived attractiveness of engaging in entrepreneurial behavior, 2) perceived social norms with respect to engaging in entrepreneurship, and 3) perceived self-efficacy and feasibility for engaging in entrepreneurial behavior (Kruger & Carsrud, 1993).

Persistence with completing nascent entrepreneurial behavioral tasks such as a business plan improves when individuals possess a high degree of self-efficacy (Sequeira et al., 2007). This forms a strong motivational connection between self-confidence, persistence, and explicit behavior leading to the formation of a new business.

The next section will briefly discuss some overlapping themes between the self-directed learning literature and the entrepreneurship literature.
Intersection of Entrepreneurship and Self-Directed Learning Framework

There are several common themes in both the self-directed learning literature and the entrepreneurial learning literature. Humanism helps to inform educators about adult education and entrepreneurship. For example, Roger (1969) views the individual learner striving for self-actualization as one who could be innovative and creative with new products.

The role of autonomy is also an interesting parallel between the two frameworks. Self-directed learning views the autonomy construct as critical to assisting learners with forming their own thoughts and judgments, free from bias and prejudice (Candy, 1991). This includes the ability of the learner to modify existing values and rules or rejecting these rules through critical reflection. Similarly, the entrepreneurship literature discusses the importance of an entrepreneur’s capacity for critical reflection regarding their prior formed paradigms and the ability to reject those paradigms that might stem from faulty learning (Choi, 1993).

Much of the entrepreneurial learning literature positions the established business owner as someone in charge of his or her own learning and problem solving based on his or her own experience, seemingly without the need for a mentor or formal learning programs. This could be viewed as a major shortcoming of several self-directed learning models and several entrepreneurial learning frameworks, as empirical studies reveal that learning is enhanced through dialogue with others (mentors, teachers). There are also common themes in how the motivational construct is viewed in the self-directed learning literature and the entrepreneurial literature.

Both self-directed learners and entrepreneurs are viewed as being intrinsically motivated with an internal locus of control (Bird, 1989; Brockett & Hiemstra, 1991;
This is a common motivation construct that applies to both the self-directed learner and the entrepreneur. Some self-directed learning models and entrepreneurial learning models value the role of social networks with learning. Social aspects of learning are also an important dimension in the self-directed learning PRO model and the SDL comprehensive model, and this construct is consistently raised as an important dimension in the entrepreneurial learning literature (Brockett & Hiemstra, 1991; Christensen et al., 1994; Hills & Singh, 2004). The role of social dialogue is an important dimension of the self-directed learning comprehensive model, and it is a pervasive construct in the entrepreneurial learning literature. The notion of individual characteristics is also a construct that is a common theme in both the self-directed learning literature and the entrepreneurial literature (Garrison, 1997; Singh, 2004).

**Adult Learning Participation, Attrition and Discontinuance**

Educational scholars have contributed a considerable amount of foundational literature and many studies regarding adult learner participation, attrition, and discontinuance with traditional and nontraditional college students (Bean & Metzner, 1985; Boshier, 1971; Houle, 1961; Morstain & Smart, 1974; Pascarella, 1980; Scanlan & Darkenwald, 1984; Skilbeck, 2006; Spady, 1970; Tinto, 1975). Although we know a lot about why traditional (18-24 years old) and nontraditional (25 years old and over) college students discontinue formal learning, there is a gap in the literature addressing why adult learners discontinue short-term learning programs in formal settings.

Because of the expansive literature on this topic with traditional college students, this section limits this review and discussion to several foundational studies regarding participation, attrition, and discontinuance of nontraditional college students in formal learning settings. There are two approaches taken by educators regarding participation
and each has strategies to help increase participation in adult learning: (1) improving our understanding of why people engage in learning, what they choose to learn, how they go about organizing and conducting their learning, and where the learning takes place, (2) lowering barriers and improving environmental conditions for participation (Skilbeck, 2006). More needs to be known concerning why some adults pursue learning to advance their understanding and skills while others do not. Improving the scale and access to adult learning requires an understanding in personality and the basic structures of contemporary social and economic life.

This final section explores several foundational models for adult learner participation that were relevant to this study.

**Foundational Literature About Participation in Adult Learning**

One of the first studies on participation was Houle’s (1961) research that informed the adult educational community by identifying three motivational factors impelling learners toward participation in adult learning projects. Participants aspired to meet specific goals with their participation in an adult learning activity, but they differed in terms of motivating factors. Some participants were motivated by a goal orientation stemming from a desire to meet well-defined personal objectives. Others were found to participate in adult learning activities because their motivation stemmed from an activity orientation. These learners took part in learning activities because they found enhanced meaning and purpose in their life by participating in educational programs that often having nothing to do with the content or stated learning objectives (Boshier, 1971). Finally, the learning-oriented learners were motivated to participate because they seek to gain knowledge purely for the enjoyment of doing so (Houle, 1961).
Goal-oriented students’ seek to fulfill a curiosity or a need that may be aroused by a personal interest. For example, the nascent entrepreneur may be at a stage in life where he or she wants to explore the opportunity to turn a hobby into a business that supports him or herself with full-time employment. This person might enroll in a small business management course, read at the library about starting a business, or explore the Internet to learn as much as he or she can about marketing and developing a business. These goal-oriented learners seek information from multiple institutions, and read considerably more than the average person in the areas that interest them. These learners become interested within the subject matter because a learning resource has become available (Houle, 1961).

The activity-oriented engage in learning primarily for the social benefit of joining and participating in groups. Unlike the goal-oriented learner, activity learners do little reading as a means to gain new knowledge. Activity-oriented learners are not engaged in the learning activity for the sake of learning. Activity-learners seek out learning programs that can provide them with the human interaction that they are seeking (Houle, 1961).

The final type of adult learning participant that Houle (1961) refers to is the learning-oriented. For these learners, education is constantly woven into their daily lives by avid reading and participation in various learning programs. They seek and participate in adult educational programs purely for the benefit of learning (Houle, 1961). Building on Houle’s typology is Boshier (1971), who developed the education participation scale (EPS) to measure adult student participation motives. The EPS utilizes a motivational framework to develop factors related to adult learning participation. Boshier contends that adult learners are motivated by 14 factors labeled as
follows: 1) Social welfare (improving the student’s ability to serve the community), 2) Social contact (interpersonal/social satisfaction), 3) Other-directed professional advancement (to comply with expectations of others), 4) Intellectual recreation (stimulus seeking), 5) Inner-directed professional advancement (student has clear cut professional goals to satisfy), 6) Social conformity (participating because of perceived prestige value), 7) Educational preparedness (to satisfy specific future goal oriented activities), 8) Cognitive interest (learning), 9) Educational compensation (to enhance previous education in a different field), 10) Social sharing (to share a common interest with a friend), 11) Television abhorrence, 12) Social improvement and escape (to gain insight into self), 13) Interpersonal facilitation (using participation to improve relationships with others), and 14) Educational supplementation (participating in courses that will help aid in the completion of the main goal-degree). Boshier found that these 14 first-order factors contained six that were socially oriented, two that were job oriented, four that were learning-oriented, and two minor factors resulting from item specificity and statistical procedure used. The social orientation factors reveal that some learners are engaged in learning to achieve social or community objectives (Boshier). The social orientation encompasses factors such as social welfare, social contact, social conformity, social sharing, improvement/escape, and interpersonal facilitation. The job orientation factors such are other-directed and inner-directed professional advancement. The learning-orientation included factors such as intellectual, cognitive interest, educational compensation, and educational supplementation factors.

Boshier’s 14 factors were analyzed using factor inter-correlation (principal factors and rotated to achieve orthogonal and oblique structure). This process yielded seven second-order factors with eigenvalues greater than 1 and these were clustered resulting in
the following factor descriptions: 1) Interpersonal improvement/escape, 2) Inner versus other-directed, 3) Social sharing, 4) Artifact (taking part in a course that will help them achieve a substantial educational goal, such as taking a computer class to help them complete their bachelor degree), 5) Self-centeredness versus altruism, 6) Professional future orientedness, and 7) Cognitive interest.

Boshier also introduces the notion that adult education participation could be linked to the motivational framework that views behavior as action taken to satisfy homeostasis. Boshier (1971) defines *homeostasis* as a person’s mobilization of “defenses to ward off disruptive forces, which cause tension or threat—in adult education student, boredom, social isolation, an unhappy inter-personal relationship and in so doing brings into play actions which will restore balance” (p. 20). Expanding this construct to nascent entrepreneurship could help inform educators understanding about participation and discontinuance in learning. For example, the nascent entrepreneur is typically presented with a myriad of unknown factors in the beginning stages of the business launch. This might create a deprivation (tension increase) in the individual that causes action (participation) that eventually leads to satisfaction (tension decrease). As previously mentioned, the opportunity recognition process includes four stages (pre-recognition, Eureka experience, continued testing of the idea, the decision to start) (Gaglio & Taub, 1992). It’s not difficult to imagine that the nascent entrepreneur experiences increased tension up to and through the testing phase, and then most likely a tension decrease at the point that they make the decision to proceed or to discontinue their venture creation process. It is reasonable to assume that some nascent entrepreneurs will discontinue their SBDC learning program once they reach this critical, go or no-go decision. Expanding
on Boshier’s study, several other scholars sought to confirm the EPS initial findings across multiple cultures.

An attempt to test the results of the EPS across multicultural groups yielded conflicting results to Boshier’s study (Morstain & Smart, 1974). Concerning the EPS and in relation to this study, Morstain and Smart (1974) found “with respect to the group differentiating ability of the EPS, the results of this study tentatively indicate that this inventory can reflect to some degree the relative importance of different reasons for participation in adult education courses” (p. 96). The study also supported Boshier’s conclusion that adult learner’s motivations for participation in educational programs are more complex than Houle’s initial categorization. Morstain and Smart (1974) identified another participation factor that they termed external expectations (seeking to please others by fulfilling an expectation of others) as relevant to adult learning participation. An example might be the nascent entrepreneurial enrolling in the SBDC entrepreneurial learning program because their banker indicated that it would be a good idea, as opposed to the entrepreneur participating due to his or her own intrinsic motivation. A discussion regarding adult education participation and discontinuance is not complete without considering what deters learners from participating in adult learning.

Another way to look at participation is to look at factors of deterrence, meaning the underlying structure of the multitude of reasons adult learners provide for their lack of participation in continuing education (Scanlan & Darkenwald, 1984). These scholars found that adult learners were deterred from participation in adult learning by the following factors: 1) disengagement (apathy, negative attitudes), 2) lack of quality (lack of programming quality), 3) cost, 4) family constraints, 5) lack of benefit (related to perceptions of the worth of participating), and 6) work constraints. The construct of
deterrence provides insight for this study by shedding light on factors such as the learner’s family responsibilities, work constraints, and the perceived value of the content of the SBDC learning program.

A later study by Darkenwald and Valentine (1985) sought to confirm the initial research concerning deterrence. This later study discovered additional deterrent factors related to student perceptions about their learning such as: 1) lack of confidence, 2) lack of course relevance, 3) time constraints, 4) low personal priority, 5) cost, and 6) personal problems. Other scholars studied traditional and nontraditional students in formal education settings to better understand the effects of socialization on attrition.

Influential studies concerning student attrition with traditional college students rely heavily on the socialization process (shared friendships and values) as a major factor in the attrition process (Spady, 1970; Tinto, 1975; Pascarella, 1980). However, part-time older students experience an environmental press resulting from less interaction with campus extracurricular activities, faculty, and class-related activities while also experiencing increased external demands from family or work-related activities (Bean & Metzner, 1985). Conceptual models on attrition of college students contain elements other than the socialization process that should be considered in attrition models. For instance, students with poor prior academic performance (GPA) are conceived as more likely to drop out of their learning program in relation to students with higher GPAs. This factor has been in previous models of attrition. Several scholars went further and conceptualized a pathway attrition model to help inform our understanding of nontraditional student attrition.

The Bean and Metzner (1985) attrition model conceptualized the direction of both direct and compensatory pathway effects between five broad variables and their
corresponding factors. First, the model considers the background variable that encompasses student factors such as age, enrollment status, prior learning success, residence, ethnicity, and gender (Bean & Mentzer, 1985). The background variable is conceived as directly affecting the academic variable, which includes such factors as student study habits, academic advising, absenteeism, major certainty, and context factors, such as course availability. In addition, the environmental variable includes factors such as the learner’s finances, hours of employment, outside encouragement, family responsibilities, and opportunity to transfer. These three variables (background, academic, environmental) and their related factors are conceived as directly affecting the psychological variable made up of factors such as student utility, satisfaction, goal commitment, and stress. These interacting variables and factors, along with a social integration variable affect the student dropout rate. In contrast to traditional students, the social interaction variables are of much less importance with nontraditional student populations as compared to the importance of these variables with traditional students (Bean & Metzner, 1985). The five variables in this model and their corresponding factors are viewed as relevant for nontraditional students enrolled in college courses.

In summary, despite the fact that a gap was found in the adult education literature pertaining to attrition in short-term formal education, this literature helped to inform my understanding of discontinuance for this study. Critical background factors of nascent entrepreneurs are conceived to include student factors, such as employment status, course relevancy, external expectations, family responsibilities, motivation factors, and the learner’s social networks. The next chapter will discuss the methodology for this study.
CHAPTER 3

METHODOLOGY

This study explores the learning challenges encountered by nascent entrepreneurs who enroll in business planning courses and then withdraw prematurely from the SBDC entrepreneurial program. A purpose of this study was to add insight to help SBDC entrepreneurial educators understand why their adult learners discontinue their learning program prematurely. In addition, this study explored how the comprehensive self-directed earning (SDL) model might help to inform our understanding of attrition amongst nascent entrepreneurial adult learners.

Because this research was about human phenomena in education, with an underdeveloped theory to guide it, the study employed a mixed method design that drew on the strengths of using qualitative design to help provide insight about the themed issues and challenges affecting nascent entrepreneur learners’ discontinuance with their SBDC entrepreneurial program. It also drew on the strengths of quantitative design to confirm those variables and factors that provided the most relevance to help SBDC educators better understand nascent entrepreneurial learning discontinuance. The mixed method approach provided me with the ability to collect both qualitative and quantitative data, while guiding the integration of the data at different stages of the inquiry (Creswell, 2003). In relation to this approach, Johnson, Onwuegbuzie and Turner (2007) stated: “Although mixed method research is not new, it is a new movement, or discourse, or research paradigm” (p. 113).

This chapter first provides an overview of several assumptions related to the mixed method research paradigm, and then it introduces the reader to the mixed method design discourse. This is then followed by a discussion about the type of research design
that was used in this mixed method study. This chapter then outlines my background (the researcher’s) background, along with an overview of the participant selection, data collection and analysis, and verification strategies undertaken for this study. The chapter concludes with a discussion of the ways in which this study is obligated to work with the Pennsylvania State University Office of Research Protections, a section detailing the strengths and limitations, and a summary of the chapter.

**Mixed Method Research Paradigm**

Determining which research paradigm and which research design was most appropriate for providing new insight regarding nascent entrepreneurs discontinuance in an entrepreneurial learning program was an essential question that I had to be address at the beginning of this study. Prior to addressing this question, a few concepts are defined for the reader. A *paradigm* is defined as “an overarching worldview and belief system that is [SIC] often competing and contradictory over issues concerning nature and reality” (Johnson & Turner, 2003). The debate about what constitutes knowledge can be characterized by assumptions made regarding the “nature of organizational phenomena (*ontology*), the nature of knowledge about those phenomena (*epistemology*), and the nature of ways of studying those phenomena (*methodology*)” (Gioia & Pitre, 1990, p. 585). Mixed methods research requires the researcher to make certain assumptions about ontology, epistemology, and methodology. These assumptions often cause conflict between researchers who either use a non-mixed qualitative or a quantitative design approach to seek new knowledge.

The decision to use a qualitative or quantitative approach causes tension between researchers who assume that knowledge develops through a collaborative constructivist
perspective (qualitative) and those who believe that knowledge develops from a post-positivist perspective (quantifiable) statistical data (Creswell, 2007). The mixed method approach is aligned with the philosophy of pragmatism. *Pragmatists* are defined as having the following beliefs:

As a group pragmatists are convinced that human thought is intrinsically linked to action. Theory was joined with practice. Ideas operate as instruments rather than ideals. Reality is in process, undergoing change at every turn of events. The universe is seen as evolving rather than static. External forces do not determine humans; rather, through intelligence, humans are capable of shaping experience (Maxcy, 2003, p. 63).

As a philosophy concerning the discovery of truth, it allows for the sequential collection of different types of data that will help the researcher best understand the research problem (Creswell, 2003). “The major advantage of mixed method research is that it enables the researcher to simultaneously answer confirmatory and exploratory questions, and therefore verify and generate theory in the same study” (Teddlie & Tashakkori, 2003, p. 15).

The predominance of quantitative studies in the entrepreneurship literature suggests that quantitative studies are valued more by entrepreneurial scholars as compared to qualitative studies (Gartner & Birley, 2002). Although quantitative studies are the dominant design method within the entrepreneurship scholarly community, several entrepreneurial scholars recently stated: “some questions simply do not get asked, or cannot be asked, when undertaking quantitative studies.” Before this study very little was known about why nascent entrepreneurs discontinue their learning prematurely. Therefore, qualitative research allowed me to ask open-ended questions that helped to
discover what obstacles and challenges learners experienced during their participation in the SBDC entrepreneurial learning program. The qualitative approach allowed me to collect participant meanings about the nature of the research questions. Using only a quantitative approach would have limited the identification of many respondent values and challenges concerning learner attrition to predetermined classification systems for participants to respond to, rather than allowing the participant to respond in their own words (Creswell, 2003).

The rationale for using a mixed method research design for this study included: 1) the support provided by theory for using both quantitative and qualitative methods within the same study, 2) the priority of using the research question(s) as the critical factor in determining the research method design, 3) this study was grounded in an applied research paradigm, and 4) the debate over metaphysical concepts such as truth and reality (Cresswell, 2005; Cresswell & Plano Clark, 2007; Teddlie & Tashakkori, 2003). Therefore, this research design provided an opportunity to uncover themes concerning the nascent entrepreneurial discontinuance phenomena during the qualitative phase of the research. When conducting a mixed method research study there are several design types that can be selected. These are discussed in the next section.

**Mixed Method Design Types**

The mixed research method provided criteria to guide me in which design usage was most appropriate for this research study (Creswell & Plano Clark, 2007; Gutmann & Hanson, 2003). The nature of this study's research questions and the established criteria helped to guide me in selecting the sequential exploratory (Creswell & Plano Clark, 2007). A consideration in guiding the selection of this design type for this study was the
discovery that existing survey instruments were not available for testing the constructs of interest. The variables and components that would be useful in describing the challenges faced by nascent entrepreneurs who discontinued their learning program were not known at the start of this study and there was no guiding theoretical framework for nascent entrepreneurial learning discontinuance. Finally, little was known about how the SDL comprehensive model might help to inform SBDC educators understanding of nascent entrepreneurial learning. Consequently, the sequential exploratory design type was deemed most appropriate for this study because it provided an opportunity for me to explore the constructs of the comprehensive SDL model, along with the discontinuance components ascribed to nascent entrepreneurs through open-ended question inquiry (Cresswell, 2003). The sequential exploratory design also offered other advantages for this study.

The sequential exploratory design is useful when a researcher needs to develop and test an instrument, or when the quantitative categories (e.g., survey) are not known (Creswell & Plano Clark, 2007). Moreover, this design type is appropriate when the researcher needs to test an emergent classification, and within the same study, to explore phenomena in depth (Morgan, 1998). These conditions were all true for this study and this guided me in selecting the sequential exploratory design.

The sequential exploratory design relied on qualitative data collected through semi-structured interviews to explore the related challenges experienced by the participants with their learning program. Semi-structured interview questions (Appendix A) uncovered themes to help guide the questionnaire development that was used for the quantitative phase of this study. The qualitative data guided the construction of specific questions for the quantitative survey (Appendix C), (Creswell & Plano Clark, 2007).
Each interview was recorded and transcribed. Field notes were taken at the beginning and at the close of each interview, noting non-verbal cues observed during the interview. In addition, the transcripts were read and interpreted by me to reveal emerging themes. Then, through a series of iterations the data was organized into logical themes that emerged from the individual narratives. The interview coding process included organizing the data into chunks (Cresswell, 2003). The qualitative data provided the language or terminology to help develop the survey. The qualitative data ensured that the language and terminology used in the survey instrument had meaning for the participants because the language emerged from the participants' own language (Cresswell, 2003).

Following the qualitative data analysis, the quantitative phase was initiated and this had equal priority in this study. The notation used for this type of mixed method sequential exploratory design is QUAL:QUAN (Cresswell & Plano Clark, 2007). Thus, in this study equal weight was given to both phases of the study. Using the mixed method design presented additional implications for me to consider.

There are both strengths and challenges in using this type of research design. The strengths include: 1) the sequential exploratory design contained separate and distinct phases that made the study easy to describe and implement; 2) this type of design made the qualitative design aspect more palatable for quantitative-biased researchers that tend to dominate the entrepreneurial literature; 3) this type of design was easy to apply to the multiphase of this single study (Cresswell & Plano Clark, 2007). However, there were several challenges with selecting the mixed method design over the single type design study (i.e. qualitative or quantitative). The challenges included: 1) the two phase sequential design took longer for me to implement; 2) it made it slightly harder for me to specify the exact quantitative aspect of the study when applying for internal review board
approval; 3) I was required to specify if participants from the qualitative study were also eligible to participate in the quantitative design study; 4) I needed to determine which data to use from the qualitative study, and; 5) I was required to take steps to ensure that the results were reliable and valid from the survey instrument. 6) I found it more challenging explaining the sequencing of my research questions to my committee and the IRB committee (Creswell & Plano Clark, 2007). Fortunately, my background helped me to overcome some of these challenges.

**Background of the Researcher**

A principal that guided my approach to this study is summed up as “the underlying rationale for mixed method inquiry is to understand more fully, to generate deeper and broader insights, [and] to develop important knowledge claims that respect a wider range of interest and perspectives” (Green & Caracelli, 1997, p. 7). Applying this principal started with the need for me to be transparent about potential beliefs, attitudes, or professional roles that might influence the design, interpretation, or reporting of the results.

I had over 20 years of experience as a teacher, consultant, mentor, manager, and leader within the SBDC program; therefore, the ontological and epistemological viewpoints that I held were made transparent. During the qualitative phase of this study, I took a subjective view of reality. Subjectivist epistemological viewpoints are concerned with explaining individuals’ perceptions of their organizations or society (Grant & Perren, 2002). Subjectivist researchers are concerned “with an understanding of the way in which the individual creates, modifies, and interprets the world” (Burrell & Morgan, 1979, p 3). The SBDC program operates more from an objectivist viewpoint than a
subjectivist viewpoint. If the program perspective influenced me, it was likely swayed toward an objectivist viewpoint. The objectivist researcher views the social world as “if it were a hard, external, objective reality” (Burrell & Morgan, 1979, p. 3). This objective reality perspective manifests itself in various ways in the SBDC program.

My employment in the SBDC could have created a bias against reporting findings that might have casted the program in a negative way. In addition, my stake in the program could have unknowingly caused an adjustment in program curriculum, teaching approaches, or strategies that could change important aspects of the program during the study resulting in bias. Furthermore, it was important that I constantly monitor the questions posed during the interviews. There was a need for me to be on guard for leading questions and to check any biases during the interpretation phase of the results, especially during the qualitative phase.

Although my current employment within the program under study presented challenges with checking potential biases, it also provided a benefit to this study. For example, knowing the nuances and differences in how nascent entrepreneurial learning is approached in the SBDC program helped me with interpreting different aspects of the data collected. Moreover, having small business experience also provided me with helpful insight during the interview process in relating to the personal recollections of those who discontinued the program.

Finally, I have published in the field of entrepreneurship and education using quantitative methods and this helped provide the experience and knowledge to help me navigate the various decisions that were present for the quantitative analysis phase of this study. Previously, I taught marketing research methods at the undergraduate level. This
provided me with knowledge and experience with questionnaire design and qualitative research methods that were required during this phase of this study.

**Participant Selection**

There were a number of issues concerning the sample selection for this mixed method research design study. In the behavioral and social sciences, there are four types of sampling strategies including probability sampling, purposeful sampling, convenience sampling, and mixed method sampling (Teddlie & Yu, 2007). The purposeful sampling method selected for this study was based on the nature of the studies research questions (Kemper, Stringfield, Teddlie, 2003). In the case of a purposeful sample, the desire was to identify a small number of participants who had experienced a premature withdrawal from the SBDC learning program. This was required in order to explore in-depth the experiences and perceptions of the learners (Creswell & Plano Clark, 2007).

This study also utilized the maximum variation sampling strategy, which is used in purposeful sampling. This allowed me to select extreme cases in order to ensure that multiple perspectives were included in the analysis (Creswell & Plano Clark, 2007). The criteria for inclusion in the study included diverse student representation related to the participants’ current business status (in business, not in business), and characteristics such as, ethnicity, gender, age, educational attainment, rural, and urban living. Thus, for the qualitative study the demographic breakdown included four Latina women, two Latino men, two White women, two White men, and one Indian man. No African Americans were able to participate in this phase of the study because of scheduling conflicts, although two were asked to participate in the study.
For both the qualitative and quantitative phase, the criteria for participant selection was limited to those learners who had completed a minimum of three hours of training and one hour of mentoring experience before they discontinued their learning program. This helped to ensure that the participant entered the program with what one could reasonably conclude was an initial intention to continue. I interviewed 10 participants for in-depth interviews during the qualitative phase (Kemper, Stringfield, Teddlie, 2003). The participant selection for both the qualitative and quantitative phase included those students who discontinued the SBDC learning within the past four years.

A purposeful sample for the qualitative phase of the study allowed me to include a sample selection that is more representative of national characteristics for nascent entrepreneurs along demographic, gender, ethnicity, and education categories. This allowed me to select participants from the SBDC that represent rural, urban, and suburban areas. I used this criteria was to search students matching these fields in the SBDC WebCats student database. This database contains all essential contact information, instructor notes, and student needs assessments that are self-reported by the student. This database was accessed and reviewed by me to generate a list of potential students who met the criteria for inclusion in the study.

**Qualitative biographical sketches.** This section provides brief biographical sketches of the 10 participants for phase one of the research. The names given are pseudonyms. The following sketches are combinations of my field notes and biographic information gleaned during interviews. I paid participants $25.00 for participating in interviews. A professionally trained translator and graduate assistant employed by the SBDC program sat in with me during the interviews with our Latino students, and the translator transcribed in English any interview narrative segments that were in Spanish.
She also offered translation services for me during the interviews if the Latino students switched from English to Spanish. Some interviews were in-person and others were completed by phone to accommodate the schedules of the participants. Permission was granted by all of the participants to record the interviews, and each participant had an opportunity to review the transcriptions of the interviews and to make corrections. The following brief biographical sketches provide background on the participants for the qualitative phase.

Carolina smiles often and easily, and she cries at times when speaking about her struggles with getting her business started. She is a Latina in her early 20s, and mother of two children enrolled in preschool and elementary school. She spoke fluent English during our in-person interview at the SBDC office; however, she frequently transitioned back to Spanish when trying to make a specific point about something during our in-person interview. She was professionally trained by one of the top rated chefs in New York City, and she has a passion for making glitzy, tasty cupcakes. She has an extended family in the Reading, Pennsylvania area. She attended three out of eight classes of the SBDC bilingual entrepreneurship course. None of her immediate family members has experience in small business; but, her sister has some accounting education, and she helps Carolina understand the financial aspects of her business. She took the classes with the hope of launching a retail cupcake store and she previously made customized cupcakes for people in her social network.

Claudia is very friendly. She brought her friend to the interview. She was very animated and emotional during our in-person interview at the SBDC office, especially when sharing her frustrating experiences dealing with the City of Reading, PA codes and zoning offices. She is an early 30s, and single Latina mother of 2 elementary-age
children. She came to Reading seven-years prior to the interview from Puerto Rico. Upon her arrival to Reading, she worked third-shift in a food manufacturing company. Most of her immediately family still resides in Puerto Rico. She has relied on close friends to help her with her established day care business, which she opened about three years before the interview. She participated in three classes out of the SBDCs eight-week bilingual entrepreneurial education course.

Joyce is an early 30s, married White mother of a preschool-age child. She graduated from Kutztown University with a professional writing degree about seven years before the interview. She was very articulate and pleasant during her phone interview with me. She had been professionally employed in a corporation before the birth of her newborn. She took maternity leave from her corporate position, and this provided her the time to reflect on her new role of motherhood. She decided to launch her business so she could have more time to spend at home with her newborn child. She attended four out of five workshops of the SBDC business planning series workshops that are held each month in the Exton, PA public library, and she took several SBDC online modules about small business management topics. She was launching a home-based, business communications consulting business.

Mike came to the U.S. from India about 15 years before the interview. He is a late 30s professionally employed information technology specialist in a corporate setting. He participated in four out of five SBDC business-planning classes in the Chester County, PA public library. He was friendly during the phone interview, and he was very appreciative of being asked for his opinions about the SBDC program. He attended SBDC classes in hopes of opening a real estate business that would involve him purchasing homes in need of repair and then reselling them for a profit.
Sonya is an early 20s, single Latina woman of Puerto Rican descent. Her parents came to the U.S. when she was in preschool. She is bilingual, although, English is her dominant language. She has taken professional vocal training, and she came to the eight-week bilingual entrepreneurship program seeking to turn her passion for singing and entertaining into a livelihood. She participated in four out of eight classes of the entrepreneurial certificate program. Obtaining a certification from the course was a stated goal of hers. She was the only participant that mentioned the perceived value of completing the course to obtain the certification. She had produced several singles and she was being paid to sing in local clubs in the region. She was very open and engaging during the in-person interview at the SBDC office.

Andrea is an early 30s, married White professional mother of two children. She participated with several SBDC webinars, she took several SBDC online learning modules, and she had one phone meeting with an SBDC mentor. She was referred to the SBDC program by a commercial lender, who was also a family member. She lived in the suburban area of Harrisburg, PA. She sought to learn how to develop a business plan in order to obtain financing for a family entertainment center, for which she perceived a need for in the area. Her husband was employed, and, from her interview statements, it was clear that he was an active participant with her in discussions about starting the entertainment business.

Mark is in his early 40s and employed in the skills trade. He played professional soccer after his military commission ended. He had an invention for a new type of soccer cleat cleaning tool. He had participated in one SBDC phone-consulting meeting with a team of graduate assistants and a professional consultant. He was married to a Latina woman, who was professionally trained in accounting. They resided in the suburbs near
Reading, PA with their elementary school-aged daughter. He referred to his wife's help in the business planning. He had spent over $20,000 on his invention before his interview with me. He was pleasant and engaging on the phone and he was excited to be asked to participate in the study. His social networks consisted of the parents of his daughter’s soccer team and some friends in his trades union.

James is a Latino man in his early 50s, with a wife and at least one adult son who helped him in his retail notary service business in downtown Reading, PA. He started his retail business about two years before our interview. He participated in the eight-week, bilingual entrepreneurship course, and attended three out of eight classes. He was very friendly and open during our interview at his retail store about his challenges of starting his business within the city of Reading, PA. He had to interrupt the interview several times to attend to customers who came into his store.

Martin is a professionally employed retail bank manager in the Chester County, PA area. He was in his late 50s, and he had considerable small business exposure through his career in banking. He was involved in a family retail fresh seafood market in the state of Delaware. He attended the four-part business planning series that was conducted at the Chester County public library. He attended all but one of the classes, but he had not participated in any mentoring sessions. He was very pleasant and engaging during our phone interview.

Pete is a young married Latino man in his early 20s, who came to the interview with his Latina wife. They attended the SBDC eight-week bilingual course together so that they could work on their business plan for a real estate business. They planned to purchase homes, repair, and then sell them. He was employed in a local factory, where he worked sporadic shifts making it challenging for him to attend every class. He
admitted that this was the second time that he had attempted to complete the program due to his sporadic work schedule. He was very personable and engaging during our in-person meeting at the SBDC office.

This concludes the brief biographical sketches of the 10 participants that I interviewed for the qualitative phase of this study. The next section discusses the method that I used to recruit participants for the quantitative phase of this study.

Quantitative Recruitment. The subjects for the quantitative phase of the study received an email attached to the survey (Appendix C) describing the purpose of the study along with informed consent documents and directions for replying to the researcher about their interest in participating in the study. Using Survey Monkey, the instrument (Appendix C) was emailed to the sample of participants that were selected from the SBDC student WebCats database that met the criteria described in the participant selection section. A total of 2,131 subjects qualified for inclusion in the quantitative study. The completion of the survey instrument took approximately 10 minutes to complete and all survey data was submitted without identifying characteristics. The next step in the sequential exploratory mixed methods design phase was the data analysis and these issues are discussed in the next section.

Data Collection, Survey Development and Data Analysis

This sequential exploratory mixed method research study utilized the qualitative data to develop the instrument required for the quantitative phase of the study. Therefore, this study started by interviewing the 10 participants selected for the qualitative phase of the study. Interviews and questionnaires are the major methods of data collection (Johnson & Turner, 2003). “The purpose of interviewing, then, is to allow us to enter into the other person’s perspective” (Patton, p. 341, 2002). An assumption of the
interview method is that the perspective of the participant is relevant, knowable, and able to be verbalized (Patton, 2002). Because the purpose of this study was to gain insight about the challenges of those who discontinue a learning program, the interviews themselves focused on the verbal descriptions of students’ experiences, thoughts, and feelings while they were enrolled in the SBDC learning program. In addition, I was interested in exploring the expectations that the learner had when they entered the educational program. My probing questions elicited how those expectations were or were not met. I also had an interest in uncovering personal learning challenges that may have been difficult for participants and to recall if there had been a long amount of time between their discontinuance and the interview. The next section includes a discussion about the interviewing approach, the survey development, and the quantitative data analysis.

**Interviewing Approach**

The three interviewing approaches include the informal conversation, the guided interview, and the standardized open-ended interview (Patton, 2002). Because little was known about the challenges that nascent entrepreneurs experience when they discontinued their learning program, it was important for me to have flexibility for conducting the interviews so that participants’ responses could be explored further and also help build rapport with them. The guided interview technique represented a middle ground between the very structured standardized interview and the unstructured conversational interview (Turner & Johnson, 2003; Patton, 2002). The guided interview approach allowed me to be more systematic and it helped me to limit in advance, the elements to be explored during the interview (Appendix A). In addition, this allowed me to collect other information that was raised spontaneously by the participant, but it kept
my initial questions focused on the predetermined questions initially identified and agreed upon between the dissertation committee, Office of Research Protections (Appendix B), and the researcher (Cresswell, 2003; Patton, 2002; Turner & Johnson, 2003).

Individual interviews lasted approximately one hour on average with the shortest interview lasting only 25 minutes. Most interviews took place at a public setting, in the home of the participant, or over the phone. An opening statement about the purpose of the study was read at the beginning of each interview. The approved questions (Appendix A) for the guided interviews were asked of each participant with probing questions occurring when appropriate. Basic demographic and general continuing education experiences were asked at the conclusion of the guided interview questions.

Each of the interviews was audio-recorded. I recorded field notes during each interview. Field notes included short written descriptions of key words or phrases spoken by the participant that helped me with formulating follow-up questions for probing before the interview ended (Cresswell, 2003; Patton, 2002).

Member checks were performed by providing a copy of the recorded transcript to the participants taking part in the qualitative aspect of the study, and a phone call between the participants and me took place to verify the accuracy of the transcription and to seek any further comments that might illuminate their answers. After this step was completed, I used constant comparison analysis to identify and develop themes iteratively from the data collected (Creswell & Clark, 2007; Patton, 2002).

Survey Instrument Development

This section provides an overview of how each of the study phases aided in the development of the final survey instrument, starting first with the qualitative findings.
summary and then concluding with how the comprehensive SDL model guided the survey development. The sequential mixed method design methodology is based on the qualitative study guiding the construction of the quantitative survey instrument. In addition, the literature review, the comprehensive SDL model, and the data collected during the qualitative phase of the study guided the survey question development.

In response to the qualitative data a total of 26 questions, with a five-point Likert response were designed in consultation with members of my dissertation committee with the intent of capturing the participants’ perception of how strongly they agreed or disagreed with questions that measured various constructs that emerged through the qualitative study (Appendix C). A single question asked respondents to identify the obstacles that they encountered during their engagement with the entrepreneurial learning program. The multiple responses were developed from the themes developed during the qualitative study. The survey then asked two questions related to determining the participants' perception about their experience with the SBDC learning program and then a question followed asking participants to self-identify their current business status. Five additional questions asked participants to define some demographic characteristics about themselves. Many of the survey questions were deemed to measure constructs associated with the comprehensive SDL model. Finally, learner characteristic such as demographic, family background, and future intentions to start a business were asked of the participants.

The dimensions of the comprehensive SDL model detailed in the literature review and the qualitative interviews contributed to the development of the survey. This adult learning model describes three key dimensions that help to define an adult learner’s self-directedness in formal educational settings (i.e., motivation, self-management, and self-monitoring).
A number of questions were selected to help better understand how learner perceptions regarding the contextual factors affected their motivation to continue with the learning program. For each of the three comprehensive SDL model dimensions a number of questions (variables) were developed to capture various aspects of the comprehensive SDL model including, 3 questions related to motivation-expectancy, 3 questions related to motivation-affective, 1 question for motivation-task, 1 question for motivation-contextual, 1 question for motivation-entering, 2 questions for motivation-personal characteristics, 5 questions pertaining to self-management, and, 8 questions pertaining to self-monitoring.

Following the development of the survey, several faculty members on the dissertation committee with expertise in entrepreneurship, survey design, and adult learning were consulted to comment on the instrument for further refinement. Following this step, the instrument was piloted with a group of 24 existing nascent entrepreneurs enrolled in the SBDC entrepreneurial learning program. Feedback from the pilot study was used to refine the final instrument.

**Quantitative Data Analysis**

This section provides a brief summary of the statistical tests performed on the quantitative data, which included principal component analysis (factor analysis), correlations, and t-test and chi-square analysis. I used SPSS version 19 to compute the various statistical analyses reported in the study. The next section elaborates on the procedures that I used to perform the principal component analysis.

**Principal Component Analysis**

Factor analysis and principal component analysis are frequently used for exploratory analysis. Although there is a difference between factor scores and principal
component scores some researchers view these differences as subtle. In explaining the
difference between these two similar statistical tests for factor reduction Fabrigar and
Wegener (2012) state, “They merely differ in the computational approach by which the
parameters of the common factor model are estimated. Thus, as might be expected, these
procedures typically produce similar results” (p. 40). I made the decision to perform a
principal component analysis instead of a factor analysis. SPSS provides several
different options depending on the implied assumptions concerning if the results are to be
assigned to only the sample population or if there is a desire to extrapolate the results to
the entire population. Because this exploratory study was primarily interested in
applying the results to this particular sample in contrast to the entire population, I made
the decision to utilize the principal component analysis test procedure. However, “when
this method is used conclusions are restricted to the sample collected and generalization
of the results can be achieved only if analysis using different samples reveals the same
factor structure” (Field, 2005).

For this study, the main interest in using principal component analysis was to
determine how 26 predefined variables might cluster together to form a smaller set of
components. This analysis provides an R-matrix for latent variables. One of the benefits
of this analysis is that it allowed me to reduce a data set of variables to a smaller set of
variables that might measure similar constructs. Component scores are indicative of a
composite score for each individual on a particular component (Field, 2005).

Prior to performing the principal component analysis I performed a correlation
matrix analysis to determine if any latent variables had extremely high (> .8) or
extremely low (< .3) correlations with all other variables. If this had been found then I
would have excluded those variables from the analysis. No variables were found to be
highly correlated with all other variables or to have extremely low correlations with all other variables.

The results offered insight into which variables were measuring the same underlying construct or component. The correlation coefficient score for each factor and the eigenvalues were analyzed during the data analyses (Field, 2005). I reviewed the Scree plot graph as a possible method for determining how many factors to accept in the model. However, I opted to use an alternative method of accepting eigenvalues greater than .7 (Kaiser (1960) because the additional components made more intuitive sense for the purpose of this study.

After the component structure was developed, I analyzed the statistical results to decide which variables comprised the various components and to ensure that all of the variables met the selection criteria. This process is referred to as “component loading”, which is simply gauging how substantive each variable is to each factor. Statistical significance can be discerned through the loading value. The significance of the loading score will depend on the sample size. For samples of 300 to 600 the factor load score “should be greater than .298” (Field, p. 637, 2005). Correlation coefficients often fluctuate from sample to sample and this can be a problem with small samples. Kass and Tinsely (1979) recommend having between 5 to 10 participants per variable, up to 300 cases for factor or component analysis. Finally, “Bartlett’s test for sphericity should be significant < .05” (Field, 2005, p. 652).

Another decision that I made before the analysis concerned coding missing data. I coded all missing values and or (not applicable responses) as missing data, before performing the analysis. On the initial principal component analysis I replaced missing data using the SPSS list wise procedure. However, on subsequent principal component
analysis I decided to perform the test analysis with missing data values being replaced with the variable mean average for the analysis which is acceptable when there are relatively few missing data points, as was the case with this sample (Field 2005).

Another decision that I made before the analysis was the selection of a method to generate the component scores. “The simplest way is the regression method. In this method the factor [component] loadings are adjusted to take in to account the initial correlations between variables; in doing so, differences in units of measurement and variable variances are stabilized” (Field, 2005, p. 626). One of the pitfalls of using the regression method is that some component scores often correlate with other orthogonal factors (Field, 2005). However, because of the ease of interpreting the results I decided to use a regression method for computing the component scores for the final analysis that is reported in the study.

For this study 26 Likert scaled questions were used for the principal component analysis. Adhering to the accepted practice defined by Field (2005) for performing the SPSS principal component analysis allowed me to substantiate that the model produced a superb KMO value.

**Independent Means t-test**

Participants were asked if they perceived themselves as successfully completing their entrepreneurial learning program with a dichotomous option of responding yes or no. This provided two independent groups. I was interested in determining if there was a statistical difference in the means between these two independent groups in relation to the 26 variables. The independent t-test was performed on each Likert scaled variable.
Chi-square Test Statistic

The chi-square test is a comparison between frequencies of what is observed and what would be expected with ordinal classification data. The significance ($p < .05$) is required in order to infer that there is a difference between the actual and expected cell counts. This test is performed on certain demographic classification data collected from the participants.

Data Integration

Deciding when and if to integrate the data is a question that needs to be addressed in a mixed method study. The purpose of the qualitative data in this study was to guide the development of the instrument for the quantitative study. In this case, where a sequential data analysis is deployed, “the qualitative data might also be used to generate a theoretical model (such as found in grounded theory qualitative designs) in stage 2 based on data analysis; the model would be tested in Stage 3” (Creswell & Clark, 2007, p. 145). Therefore, I integrated the results from both the qualitative and quantitative data during the discussion section in Chapter 6 of this study and both phases of the study may help to validate or improve trustworthiness of the study (Creswell & Clark, 2007).

The decisions and procedures discussed in this section guided the verification strategies that were deployed and this is discussed in the next section.

Verification Strategies

Using a mixed method research design enabled me to minimize weaknesses while taking advantage of complementing strengths between the qualitative and quantitative data (Johnson & Turner, 2003). The fundamental principal of mixing methods was applied to all phases of the research process. Mixing methods helped me to establish the research results as plausible, credible, and trustworthy, and, therefore, valid (Johnson &
Christensen, 2000). A key question concerning validity is this: “Do experts (e.g., academics, practitioners, or anyone else who carefully examines a research report) consider the research to be well done and worthy of readers’ attention” (Johnson & Turner, 2003, p. 300)?

The mixed method design provided a superior way to minimize bias by employing between-method triangulation (Johnson et al., 2007), because bias that is attributed to a particular data source, investigator, or particular method will be minimized when used in conjunction with other data sources, investigators, and methods (Denzin, 1978). Triangulation allowed me to have more confidence in the results, it helped lead to the merging of theories, and it helped me to uncover contradictions in the data (Jick, 1979).

**Qualitative Verification**

Qualitative research verification strategies include an assessment of the conformability, credibility, transferability, and dependability of the study (Lincoln & Guba, 1985). Conformability reflects an assurance that the qualitative findings of the study were grounded in the participants' constructions rather than constructions that might be made by the researcher. An audit trail helped me to establish the conformability of the study. The audit trail for this study entailed documenting all aspects of the study including field notes, sample selection criteria, documents reviewed in the WebCats database, processes followed, and notes concerning the reduction process in this study to ensure a high degree of conformability (Lincoln & Guba, 1985). In addition, as previously discussed, field notes taken during the interview provided me with an emergent nature to the qualitative phase of this study, and it aided me in describing the conformability of the study (Patton, 2002).
Credibility. Refers to how believable the findings from the study are to the scholarly community. The credibility of qualitative inquiry depends on deploying rigorous methods while conducting the fieldwork in a way that results in high-quality data (Patton, 2002). Credibility is also affected by the credibility of the researcher, and this is dependent on the researcher's training, experience, and experience (Patton, 2002). Finally, philosophical belief in the value of qualitative inquiry relates to how well the researcher abides by the guiding principles of inductive inquiry, qualitative methods, purposeful sampling, and holistic thinking (Patton, 2002). As previously discussed, I utilized a triangulation method by using multiple data collection techniques to study nascent entrepreneurial student learning discontinuance. This study deployed the triangulation technique by collecting data from both semi-structured interviews and a structured survey instrument. In addition, I deployed triangulation of data sources by using the documented instructor and mentor notes on each student as a cross reference to the data provided by the nascent entrepreneur about the types of workshops and mentoring that he or she participated during the learning program (Patton, 2002).

Qualitative research scholars use dependability interchangeably with reliability, and these interchangeable words refer to the degree to which a study can be replicated (Merriam & Simpson, 2000; Patton, 2002). Dependability in this study was enhanced by maintaining an audit trail of every step of the study (Schensul, Schensul & LeCompte, 1999). Transferability of the qualitative data refers to the ability to generalize the findings to other contexts. This sample design is not valid for generalizing to other populations.

Quantitative Verification Strategies
When discussing verification strategies in quantitative research designs, scholars refer to validity and reliability (Field & Hole, 2003). These concepts are discussed in this section, and several validity and reliability statistical test are explained that relate to the questionnaire that was developed for the quantitative phase of this study. Validity in quantitative research studies essentially indicates how well the survey instrument is at measuring what it claims to measure (Field, 2005). For example, in this study, the instrument was used to measure students’ motivation and attitude at various phases of their entrepreneurial training program. The correlation scores on the variables and the component loadings helped to confirm that several variables were measuring similar constructs.

Criterion validity refers to how well the questions measure what they are intended to measure (Field & Hole, 2007). To measure the criterion validity, I integrated several existing tested questions that have been used in prior studies to measure motivation, attitude, and self-directed learning in educational settings. I used these questions as benchmarks for new questions that were developed specifically for this study and for checking the scores of those who discontinue their learning program with the scores from other educational studies. Factorial validity was another form of validity discussed by quantitative research scholars, and it was utilized in this study to confirm how well the instrument was constructed (Field & Hole, 2007).

Factorial validity is confirmed by constructing questions that expand on specific constructs of interest by asking additional questions pertaining to the same construct. These related questions are then statistically tested using factorial or component analysis to determine their degree of relatedness. When questions are highly correlated with each other, these correlations should make intuitive sense before you infer factorial validity.
In this study, the loadings around various components in the final model made intuitive sense.

*External validity* is defined as the extent to which results of the study can be generalized across populations, settings, and times (Field, 2005). Care was taken during this study to caution the reader about the limitations of this study beyond the SBDC learning program context. The purposeful maximum variation sampling that I used in this study was undertaken to enhance the external validity of the study (Johnson & Christensen, 2000). I set stringent significance levels ($p < .05$) to infer significance for the t-test (Field, 2005). I decided to utilize the principal component analysis because the ability to generalize findings for the variables was not the primary purpose of this study (Field, 2005).

I used the Chronbach’s alpha to check for the reliability of each factor. This is a procedure used with SPSS statistical software that involves splitting the data set randomly into two sets. The score for each participant is then calculated based on each half of the participant’s data set (Field, 2005). “If the scale is reliable, a person’s score on one half of the scale should be the same (or similar) to their score on the other half; therefore, across several participants’ scores from the two halves of the questionnaire should correlate perfectly (well, very highly)” (Field, 2005). The Chronbach’s alpha score was used to interpret the reliability of the questionnaire and an acceptable Chronbach’s alpha value of .7 to .8 for each component was set to infer reliability (Field, 2005).

The next two sections discuss the strengths and limitations of this study.
Strengths

This section identifies four strengths and four limitations of the study. A single research study about nascent entrepreneurial learning cannot include all of the dimensions that are relevant to the subject under study. One of the strengths of this study was the utilization of the mixed method sequential design to improve the validity of the subject under study. This method improved reliability and validity when compared to a single method study. I was also able to recruit participants using the maximum variation method for the qualitative study. This helped to ensure that the qualitative data was more representative of gender, race, culture, ethnicity, family status, and age groups. The quantitative study had a good representation of students from a wide range of demographic variables that were thought to be representative of the sample population of SBDC learners. The reliability of the seven component variables for Cronbach’s alpha scores all indicated a high degree of reliability. The study had a team of seasoned faculty researchers reviewing all phases of the data and interpretation of the results. Although the study had strengths, there are also limitations to this study.

Limitations

One of the limitations is related to the sparse demographic characteristic data that was gathered for analysis, specifically no data was asked about ethnicity. Related to this was the demographic data that was collected included only ordinal data. This limited the type of analysis that could be performed. Third, the principal component analysis statistical procedure that was utilized to produce the nascent entrepreneurial SDL component model for this study is not an appropriate analysis to infer these findings to a population beyond the sample. In addition, the 18-24 year old age group was under represented in this study, and this is a limitation of this study. Finally, due to time constraints and because of a
desire to limit the contextual differences that would have resulted by including multiple centers in this study the findings are only representative of the Kutztown University SBDC program. It would be helpful to determine if similar findings would be found in future research that included multiple centers.

**Research Ethics and Compliance**

This study was conducted under the policies of the Pennsylvania State University Office of Research Protections. I obtained approvals from the institutional review board (IRB) and the SBDC program. Informed consent forms (Appendix B and C) were reviewed with those who agreed to be interviewed or who participated in the survey. This study did not involve any treatment interventions and it only sought feedback about experiences that subjects have already voluntarily participated. I informed the participants how the data would be used and all recordings of interviews were locked in a secure environment. All transcribed data was cleaned of identifying information. Data was entered into SPSS by me.
CHAPTER 4

QUALITATIVE

The purpose of this study was to determine the factors contributing to the dropout rate of nascent entrepreneurs from their short-term business education program. This study also explored how the comprehensive self-directed learning model might provide additional insight for nascent entrepreneurial scholars and educators. The qualitative phase of this study was guided by the following research question: What are the perceptions of adult learners who drop out of the SBDC entrepreneurial learning program, and how might understanding those perceptions help SBDC instructors better mitigate the negative factors, while amplifying the positive factors influencing learner participation and attrition? The semi-structured interview guide that I used to conduct each interview is included as Appendix A and the recruitment email is in Appendix D. Each of the 10 participants selected for this phase of the study were selected because they had started either the SBDC four-week business planning program or the eight-week entrepreneurial training program and had all dropped out of the program before finishing their learning goals or graduating.

During the first phase of this interview, each participant started by describing some general concepts about how they defined and viewed entrepreneurship. This was followed by the participants detailing some personal history, and their social support systems for starting their businesses. Then each participant answered several questions that directly related to his or her experience with the entrepreneurial learning program. They were also asked questions concerning what they needed to learn when planning to start a business, followed by questions concerning what resources they used to learn
about starting a business. Then the participants were asked questions related to the obstacles they encountered that prevented them from completing the SBDC entrepreneurial program. Finally, participants were asked to make recommendations for improvement to the SBDC learning program. I allowed the participants to elaborate on certain issues that they preferred to discuss in relation to their experience with the SBDC learning program as well as the participants' business startup experiences.

During the interviews, participants were given the opportunity to share their personal stories regarding their desire to start a business. Several participants cited their personal family dynamics, such as how they grew up with parents who owned a business and this made entrepreneurship so appealing to these participants. The participants then provided their own personal accounts of the events leading up to enrolling in the SBDC entrepreneurial learning program. The interviews were analyzed for common themes emerging from the interviews. This chapter reports those themes and utilizes direct quotes to reinforce the themes that emerged. Before reviewing these themes, several concepts related to entrepreneurship are defined.

A nascent entrepreneur is someone who engages in strategic activities that result in a new business venture (McMullan & Long, 1960). Based on the participants' statements from this study entrepreneurship is often pursued because someone perceives a need or an opportunity to better serve a specific customer segment than the competition. Sometimes entrepreneurship is pursued out of passion for the type of work that one wants to do. Some people open a small business as a means of self-employment to produce income. The participants described their motivation to pursue a career in entrepreneurship as deriving from multiple sources such as personal needs, employment needs, and financial sustainability needs.
The qualitative findings are presented using the following schema:

Entrepreneurship and Motivation

Entrepreneurs’ Need for Independence, Creativity, and Commitment
Entrepreneurs’ Motivational Factors Affecting SBDC Learning Participation
Entrepreneurs’ Family Role on Motivation

Entrepreneurs’ Affective Experiences

Entrepreneurs’ Negative Emotions
Entrepreneurs’ Positive Emotions

Entrepreneurs’ Obstacles Preventing SBDC Learning Program Completion

Entrepreneurs’ Lack of Financial Resources
Entrepreneurs’ Lack of Knowledge about SBDC Learning Resources
Entrepreneurs’ Lack of Time and Scheduling Conflicts

Entrepreneurs’ Perceptions of the SBDC Learning Program

Perceptions about the SBDC Learning Program
Learners’ Recommendations

Summary

The first section provides the reader an overview of how participants defined entrepreneurship and their motivation to be an entrepreneur.

**Entrepreneurship and Motivation**

In describing their own entrepreneurial experiences, participants discussed various ways that they defined entrepreneurship, as well as various motivational factors that inspired them to be entrepreneurs, including the need for creativity and freedom. Each of the participants shared why he or she was motivated to participate in various entrepreneurial learning modules, which included a basic workshop on the fundamentals
of starting a business (i.e., legal, accounting, financing). The participants for this phase of the study discontinued the SBDC entrepreneurial learning program before finishing their goals. The participants defined entrepreneurship in their own terms at the start of each interview.

Some participants were pursuing entrepreneurship as a way to acquire more financial and personal freedom. As a result, some participants defined entrepreneurship in relation to their current employment situation. For example, some participants were motivated to an entrepreneurial career as a way to achieve personal freedom. The very nature of self-employment through entrepreneurship is about breaking the mold of working in a corporate or institutional environment. Entrepreneurship is one way that some people choose to become self-reliant through devoting their energy into creating something of value for others and themselves.

For many of the participants with children, their motivation to start a business provided a means for them to negotiate their personal need to be with their children and family, while also pursuing a career. Although financial freedom was motivating many of these participants toward entrepreneurship, only one participant disclosed that he was pursuing a business to make a profit. Most of the participants were pursuing an entrepreneurial career for reasons other than profit seeking. For some, entrepreneurship provided a way for creative expression. Most participants discussed how their entrepreneurial pursuit came about from a desire to be doing something in which they were passionate. For most of the participants, their desire to open a business evolved over time, rather than as a reaction to recent events, such as job loss, or family changes.

The next section discusses three broad motivational themes emerging that participants cited as factors pushing them toward an entrepreneurial career.
Entrepreneurs’ Need for Independence, Creativity, and Commitment

For some participants starting businesses was a way for them to gain independence and to be creative. Others viewed entrepreneurship as a commitment to a vocation in which they feel passionate. For example, Carolina, a married Latina mother of one and professionally trained chef, described how she perceived entrepreneurship as requiring considerable independence. She stated:

Being independent is important when starting a business because when you are trying to do something, whether you are single or married, there will always be people that are either for it, or against it, and they will try to turn you away from it.

Carolina views the opportunity to open her cupcake bakery retail store as something that will require considerable dedication and strength. She is describing a state of independence that she has yet to achieve, a future state providing her with more financial and emotional freedom.

Similarly, Claudia also spoke about how entrepreneurship offered the hope of a more independent life. As a single Latina mother of two children, Claudia described how entrepreneurship provides a way for a person to achieve independence. She stated, “An entrepreneur is a person who has their own business. A person who wishes to open a business is someone who values independence and wishes to achieve his or her goals.”

Taking a slightly different view to Claudia and Carolina was Joyce, a married mother caring for a newborn baby, who decided to open her business while she was on maternity leave from her corporate job. Joyce described how the freedom of owning her own business was a way to help her be true to herself. She stated, “My parents always told me to go to college and get a good job in an office somewhere. So entrepreneurship
is freedom, freedom from the status quo.” This reflects her desire to pursue entrepreneurship as a way to forge her own non-traditional pathway that many middleclass children are raised to value, such as going to college and going to work in a corporation. Joyce describes entrepreneurship as a way to liberate herself from what others told her she should do with her career. After graduating from college she pursued a corporate career that she found unfulfilling. It was only after she became a mother, took maternity leave, and had time to reflect, that she decided that she wanted to pursue being an entrepreneur. Starting her own business offered the freedom to become her own person, as described in the following account of when she first thought about starting a business. Joyce stated:

I started thinking about entrepreneurship very recently actually, well I mean I think it has always been there somewhere. I became a stay at home mom. That is when I left my full-time work. I did not want to go back to that [corporate career]. I started reading books, and I realized I did not need to go back to that, if I did not want to. That pause, staying at home, gave me time to reflect.

For Joyce, motherhood provided the opportunity for her to take time away from her corporate career and to reassess what she wanted for herself and her family. Joyce was pursuing entrepreneurship after a period of reflection and a major life-changing event. One participant discussed how his commitment and dedication to go into business gave him a sense of freedom. For example, Mike an immigrant from India, who now works in a corporate information technology field, described his vision of freedom and independence as an entrepreneur. He stated, “Commitment is what entrepreneurship means. You feel like it’s what you want to do, you have a feeling that you love what you
want to do, you have freedom over what you do.” Entrepreneurship was a way for Mike to spend time involved with an activity that he enjoys doing.

Several participants opted for an entrepreneurial career because it provided them the opportunity to use their creativity. For example, Sonya, a single Latina woman in her early twenties, spoke of entrepreneurship as a way to pursue her creativity by singing in a band at regional clubs. She stated, “I am a singer, but I do not know anything regarding business. I was taking the classes to continue singing as a venture.” Artists might view entrepreneurship from this creative perspective more easily than others. Yet, for Joyce, creativity was interpreted differently; she replied to a question concerning the meaning of entrepreneurship by stating, “It is about having ideas and solutions outside the box. It’s about creative thinking and the ability to think outside the box.” For Joyce, the creative aspect of entrepreneurship was about the destruction of old ideas or processes and the generation of new ideas and new processes.

The participants also discussed how their motivation to be an entrepreneur developed over a period-of-time, as opposed to being an epiphany. The next section discusses motivation in relation to SBDC learners’ participation in the SBDC learning program.

**Entrepreneurs’ Motivational Factors Affecting SBDC Learning Participation**

Most of the participants identified several factors during the interviews that motivated them toward entering the SBDC entrepreneurship program. Several participants spoke about how their entrepreneurial mindsets were formed at a much earlier stage in their life. For example, James, a middle-aged Latino man and owner of a notary service stated, “I have always wanted to be the owner of my own company.” Similarly, Mark, a middle-aged husband with a background in both the military and
professional soccer, stated, “I’ve had my prototype for my soccer cleat cleaning device for 14 years.” Another participant discussed how his entrepreneurial mindset was formed early in his career. Mike, a middle-aged professionally employed computer systems engineer originally from India, provides such an example. Mike recalled:

When I was in India at the age of 20 is when I first thought about being in business for myself. However, at that time, I was in India and I did not have the opportunity or access to information. I had the desire to do it, but I did not have the guidance there. I thought about it frequently, but there was not any way to access information. It was not easy at that time in India. When I came to the U.S., it was easier to access information, and to see the opportunity. When I was 20, it was not easy to set up a business in India.

Mike speaks about how his desire and dream of being an entrepreneur was formed at an early stage in his life. Consequently, even though Mike visualized himself as an entrepreneur early in his career, his motivation to act on that dream remained dormant until his move to the United States, where he found greater access to information. According to Mike, his desire and aspiration to be an entrepreneur was stifled until the life-changing event of moving to the United States, where he found new opportunities. These three participants indicated that their entrepreneurial mindsets were formed at a much earlier age in their life.

One participant discussed how her desire to become an entrepreneur was formed while pursuing technical training in her profession. Carolina stated, “I’ve always wanted a small shop, and I always imagined what it would look like.” A few minutes later in the conversation she stated, “Well I think it’s always a chef’s dream to open up a business. I
mean that is always the goal. That’s why you are learning the culinary business, to have your own business someday.” Carolina’s desire to open her own bakery was instilled in her during her culinary training. Her passion for cooking also translated into a desire to be in business for herself.

Others described entrepreneurship as being something that they were destined to do. For example, Claudia described how she was born to be an entrepreneur. She stated, “Although everything has been very difficult and hard, I think I would do it again because I was born to do this kind of job. I have dreamed of doing this work since I was a child.” She visualized herself in the role of an entrepreneur since her early childhood. Similarly, Andrea, a young married mother exploring the idea of opening a family entertainment center, spoke about how she thought that her desire to be an entrepreneur was an innate quality. She visualized herself in the role of being an entrepreneur for some time. Andrea stated, “I went to school for early childhood education and entrepreneurship has always been in my head. I’ve always had the business idea in the back of my head.” While Claudia and Andrea described their lives as entrepreneurs as a natural career choice for themselves, other participants discussed how their entrepreneurial career choice caused a great deal of internal conflict.

Participants who were already in business described some of the strategic activities related to starting a new business that were critical to them in forming their entrepreneurial mindsets. For example, Claudia described some of the steps that she had to accomplish to open her daycare business in relationship to acquiring the necessary education:

When I began my business, I always needed to ask others for help in translating the regulations governing the daycare business. I had
to participate in child-care education to acquire my certification.

The classes usually began in the morning and lasted until 3:00 p.m. in the afternoon.

However, Mike described the importance of talking with other people as an important developmental process for his business plan. Mike stated:

I got books and I talked to the librarian. It is hard to find a business idea through just reading books. You have to talk to people who have done it. I also read articles, and I subscribed to magazines. I use the web a lot. That is my first choice for finding business information.

Mike described the important role that his self-guided research had on the feasibility phase related to his business planning. Several other participants also shared how their desires to make money motivated them to be an entrepreneur.

For this study, I am defining profit as the amount of funds left over after business revenue is collected, and following payment of all business costs associated with producing the revenue. Profitability is essential for the long-term survival of any business. Mark discussed how starting his own business was motivated, in part, by a desire to make a profit. Mark stated, “Being able to invest and make a living, or at least a profit.” For others the idea of making a profit was implied as a concern. For example, Mike stated, “How do I make sure the property that I buy will be profitable?” Yet, for James the idea of profit was a lower priority than serving his customers with great service. James stated:

I did not understand the value of money. It was just a piece of paper to me. It [money] affects me on more of a personal level. I
do not like going too much into debt. I treat my customers well, and I want to help them no matter what they pay me. I feel good when the customer feels that I have helped them, regardless of the amount of money I am paid. Sometimes people have taken advantage of me because they see that I am a good person, and that makes me feel bad.

The discussion about profits made one participant who owned a daycare business feel some resentment toward her employees. Claudia stated:

The majority of my employees come to work for me with the idea of starting their own daycare. Personally, I would prefer to work for a company, have a salary, and simply sustain my family rather than have to manage a business. It has been difficult for me to prosper with my business since things did not happen as I thought they would from the start. Adding to this was the fact that I had neither money nor credit. I was forced to borrow money from many different sources. Now, I feel that my employees earn more and have better benefits than I due because of the debt that I owe. Additionally, I have to work twenty-four hours a day to maintain my business because this kind of business is very fragile since it involves the care and safety of the children. I have to take care of everything in the business including the children, regulations, taxes, operation costs, and employee payments.

The majority of the participants were not solely motivated to become entrepreneurs because of a desire to make a profit; but the lack of profitability did appear to raise the
level of stress for those entrepreneurs that were in business. Profit in the business can serve as a motivation and it can be a source of conflict for some entrepreneurs. Other entrepreneurs described how they were motivated to serve others through their business.

The ability to provide a service to customers provides motivation to some entrepreneurs. For this study, I am defining *service to others* as the ability to meet customers' needs or to help them solve problems through the business. Several participants spoke positively about how their business provided them an opportunity to serve others. For example, James stated:

I consider myself as more of a person who serves others rather than a businessperson out to make money. I made many attempts, but I wanted to serve the people rather than grow a business and make money. I believe that has limited me a lot.

For some the ability to serve others includes helping other entrepreneurs who may become a competitor at some point in time. For example, although Claudia initially reflected a feeling of resentment toward her employees when discussing profitability issues related to her personal financial challenges, later she talked about how she enjoyed helping others start their own businesses. Claudia stated:

I do not have a problem giving information to other people who want to start their own business even if they are going to be my competition in the future. I think each individual [potential competitor or employee] is different, and each one has different ways of doing things. I know that I am good at what I do, and I always want to offer the best service to my clients because people usually look for good quality, especially when the service involves the safety of their children. Even if I find myself in the
situation that I have too many children, I would send some of them to [a competitor] because I know them.

Helping both customers and employees solve problems, and reach their goals provides motivation and satisfaction for Claudia. Other entrepreneurs discussed how key people in their life had provided them with the motivation to start a business.

For this study, I am defining *role model* as an individual who the entrepreneur looks up to, as someone, they would like to emulate, and who is accessible to the entrepreneur for mentoring. Several participants discussed how their role models helped them stay motivated through the difficult process of starting a business. For example, Mark stated, “Almost always it was positive help that I received. Sometimes when I was discouraged, those around me would tell me to continue on and persevere.” Claudia also spoke about a Latino banker who helped her secure her property. She stated, “I contacted Mr. Lender from Reading Bank and he helped me secure a financial loan so that we could buy the property.” Similarly, Carolina discussed how her role model, the principal at her son’s school gave her encouragement through challenging times. She stated:

My principle at my son’s school made me a portfolio with my cupcakes; and, she said, "Here, I made this for you." I asked her, "Why did you do this for me?" She said, "Because I want you to do this [start the business]." She has this order book in the main office and this is what the mothers go through before ordering from me. She made this paper form for the mothers at school to use to order from me. Every child’s take home folder had a form enclosed. The orders just started coming in with checks and more checks. In addition, I had this whole binder of orders. I did well over 450 cupcakes last year. I made an excellent amount of
money and it was just amazing. It was because everyone helped, my sister, my husband, the principle, everyone. She [principal] told me that, when you open your doors we are going to make a flier and send them home to every parent. The fliers will encourage everyone to come out and support you. And it is not just my principal and the parents supporting me with my business start. It is also their neighbors, their cousins, aunts, and family.

These participants were encouraged by the ways that those in their daily lives responded when they were starting their businesses. Support can come from family members or from role models that the entrepreneur may interact with on a frequent basis. The next section will build on the importance of a support network by exploring entrepreneurship in relation to the value of the family support role as well as how entrepreneurship can create conflicting roles within the family.

**Entrepreneurs’ Family Role on Motivation**

For this study, I define *family* as the participant’s parents, siblings, spouse or partner, and children. For some participants in this study, family support was a valuable source of motivation to start a business. The role of the family is often an oversight in much of the literature concerning entrepreneurship. Family can be a source of support both financially and emotionally for people who are starting a business. Family can also be a source of conflict for a nascent entrepreneur, especially if his or her family might view the entrepreneur as pursuing a selfish desire to start a business that might put the family's financial stability at risk. The role of family in deciding to pursue an
entrepreneurial career was especially salient amongst the mothers who participated in this study.

However, a number of those interviewed for this study referenced their family as being a major source of motivation for them to participate in the SBDC learning program and to become entrepreneurs. For example, Martin a professional retail banker was participating in the SBDC learning program to supporting his family members who were too busy to participate because they were managing the daily business operations of a fresh seafood store. Martin stated:

I was attending the SBDC learning program to get information for my sister in-law. I was acting as a family mentor. We had an interest because we work in the business as a family. My father-in-law saw the [announcement] about the workshops in the paper. He told them [my sister-in-law and brother] that we would attend and impart what we learn and send them the information.

Others discussed how their family provided the motivation and influence to participate in the program and to start their business. For example Claudia, a Latina mother of two young children and daycare operator, offered insight about how her daughters provided her with the motivation to start her business. Claudia stated:

The reason that I am so perseverant in this business is because I have three people depending on me to succeed. I cannot fail my two daughters because they are my dependents, and I cannot ruin my father’s credit since he loaned me the money to start my business.

Later in the discussion, Claudia elaborated on how her daughters experience with daycare services provided her with the impetus to start her own daycare business. She stated:
I came from Puerto Rico seven years ago. I did not know the language and I was a single mother of two daughters. I had to look for work in order to support my family. I found work in a factory, in the packaging area from 7:00 p.m. to 7:00 a.m. In order to work my night shift I had to leave my children at a daycare. The owner of the daycare was of Hispanic origin. After some time, I began to notice that my daughters were being mistreated. I decided to start my own daycare business, so that I could spend more time with my daughters.

Claudia was motivated to open her daycare as a way to ensure that her own children would get better care.

However, Andrea, a mother of two young children, described how being a mother helped her see an opportunity in the marketplace. Andrea stated, “As an entrepreneur I saw a need and something that could be a benefit to me and my family, while still being a mom at the same time.” The idea of starting a family entertainment business came from her family’s experience with finding a suitable affordable family entertainment center in the Harrisburg, PA area. In her view, opening this type of business would allow her the flexibility to be a mother, and to better meet the needs of other young families at the same time. Andrea elaborated on how her entrepreneurial parents provided her the confidence to try entrepreneurship. Andrea stated:

I went to school for early childhood education and entrepreneurship has always been in my head. I have always had the business idea in the back of my head. My parents were both entrepreneurs. However, I never went through the process of putting my ideas into a business plan. My parents worked themselves off welfare after starting their business. They act as
mentors to me now. Because of my parents experience in business I know that entrepreneurship is possible for me.

Similarly, Pete talked about how his father had served as a source of influence in his decision to start a business. Pete, a young Latino married man, took the eight-week entrepreneurship course with his wife. Pete stated:

A person that I look up to is my father since he started his own business, and he still has it. This inspired me to become my own boss and create my own business. I realized that I wanted to have my own house when I grew older, and be my own boss. This inspired me to go into real estate.

While Pete discussed his positive experience of being inspired by his father, James, a middle-aged Latino retailer, discussed how he had to overcome some of the same mistakes that his father had made in business. James stated, “I learned from my father in part. He had the same vision as I did. He was a businessman, but he did not value money either.” A few minutes later James discussed how he had reached a point of being very discouraged shortly after starting his business, which was struggling, but how his family provided him the encouragement to continue. James stated:

My family provided positive support to me during difficult times with the business. Sometimes when I was discouraged my family would tell me to continue and persevere. When I started my business, I felt unsure if I should continue forward with the business. However, my son told me that I had started this business, and now I had to seek more education about operating my business. I never received any negative messages from my family. The people who comforted me helped me, including my family and friends.
While these participants discussed the positive role that their families provided, others discussed the family conflict resulting from their pursuit to start their businesses. Family can also be demotivating factor when family conflict enters into an entrepreneur’s decision to start a business. Being an entrepreneur can require a balance of family and business, as well as careful negotiation of the tension brought about from these potentially conflicting roles. Sometimes this conflict is simply a matter of balancing the starting timing of the business, as in the case of Andrea planning to start a family entertainment center when her child enters kindergarten. Andrea stated, “My first child is going into day school. So my husband and I thought that when our child gets into day school we would be able to afford starting the business more than we can now.” Andrea alludes to the idea that the timing of launching the business has been discussed with her husband, and she indicates that the priorities of her family will dictate the timing of the business launch.

Other participants discussed the conflict that can occur once they opened their business. For example, Claudia offered additional insight about how having an existing daycare business puts her in a position where she is required to negotiate between caring for her children and caring for her business. Claudia stated:

Having my own business sometimes makes it hard to spend as much time as I would like with my daughters. There are times when I have work extra hours at my daycare or work late. I have had to put my daughters in my daycare, as well, since I occasionally work late hours. I let them sleep on mats at the daycare while I take care of the other children.

Even though Claudia enjoyed the freedom to have her children with her at work, she described the conflict that she experiences when she has to let her children sleep on mats,
while she stays at work to take care of the other children. While Claudia speaks about both the benefits, and conflict that she and her family experienced from having her own business, other students discussed the conflict they experienced when family and business priorities were at odds.

For example, Carolina alluded to how she is constantly negotiating her role as a mother and wife when she thinks about starting a business that could provide a better future for her family. Carolina stated:

My husband is supportive. But in our home he is the actual moneymaker so when my dreams and my ideas were leading me to launch a business, he was the one that would say, let me touch base and say, “Carolina we don’t have the funds for it right now, Carolina we can’t start the business right now”. Therefore, I guess if I were more independent, I could afford to work more and I could afford to do more with my business.

A few minutes later Carolina talked about how her extended family tries to offer her encouragement and support through verbal messages that sometimes trivialize the challenges that she experiences. Carolina stated:

I started the SBDC program because I did not understand anything about opening a business because I am the first one in my family that is trying to open a business. Therefore, I do not have anyone to turn for help. Therefore, it is that much harder because I have no family knowledge to rely on. I mean they are supportive. They say, just open up the business. However, it is easier for my sister to say this because she only has one daughter, and she is eleven. Therefore, my niece is able to fend for herself.
My kids are five and one. It is a tug of war between family and trying to open my business.

Carolina describes a feeling of alienation and conflict with her family because they cannot relate to her experience regarding the challenges of opening a business. The role of family is an important dynamic for entrepreneurs. Family can serve as a source of motivation, vision, and inspiration. However, balancing family roles and responsibilities can be a source of conflict and frustration for entrepreneurs. This conflict can cause entrepreneurs to experience many emotions. The next section will explore the affective experiences of entrepreneurs who were participating in the SBDC program.

**Entrepreneurs’ Affective Experiences**

The affect and emotions experienced by some participants had a profound effect on their learning. *Affect*, for this discussion, is defined as the emotions and feelings experienced by the participants while they were participating in their SBDC entrepreneurial learning program. The most striking participant responses concerning affective experiences came after participants were asked a general question about why they enrolled in the SBDC entrepreneurial learning program. Many of the respondents’ negative affective experiences were related to the lack of reassurance from the SBDC program that they were following the appropriate processes for starting their businesses. The next two section discusses two subthemes including, entrepreneurs’ negative emotions, and entrepreneurs’ positive emotions.

**Entrepreneurs’ Negative Emotions**

Negative emotions refer to emotions such as fear, anxiety, and frustration that students experienced during their entrepreneurial learning program. The participants’ tendency to focus on negative emotions was not a surprise to me because these
participants did not successfully accomplish their learning goals. Emotions such as fear is a result of what SBDC learners often refer to as the “unknown risks of starting something new.” It is also related to the learners' cognitive understanding about the financial risk that they are taking in deciding to open a business. Fear is also sometimes associated with learners concern over how those who are close to them will view their decision to open a business; and, sometimes, it is simply a matter of fear of failure. For Mike the motivation to enroll in the SBDC entrepreneurial learning program was summed up as, “I wanted to be sure this is the right thing for me to do.”

Several minutes later in the conversation, Mike talked about the apprehension that he experienced about starting a business. He went on to provide some insight about why he enrolled in the entrepreneurial learning program. Mike stated:

I was looking for a guide that could mentor me. I am afraid of making mistakes or of wasting time because when starting a new thing, everyone is scared. However, if you can talk to someone who has done this before, like a guide, then you know that, oh yes, I can do this.

Mike was seeking someone who could guide him in a business venture that he little knowledge about. Mike entered the SBDC program to gain knowledge and to obtain reassurance that he was approaching the situation correctly. Mike stated, “The economy and real estate market have me concerned. When the economy went bad, I had to refocus on my job. I do not know if real estate is going up or down. My apprehension is related to external factors more than to me losing interest.” Similarly, Mark recounted why he enrolled, “I wanted to learn more and assure myself that I was doing the right thing.”

Other participants recalled other negative emotions while participating in the entrepreneurial learning program. For example, Sonya, a young, single, Latina woman
and professional performer, stated, “There was a person who would always be correcting others, and I felt that many of us did not want to participate because we felt intimidated.” This is a strong emotion to experience in a classroom setting. A few minutes later Sonya described her affective experience after she missed several classes. She stated:

I missed two to three classes. My instructor told me to do research for a business related to what I am looking to do. However, I became busy with work and I was not able to find what I was looking for since I did not finish the course. After missing those workshops, I was embarrassed to come back.

According to these participants, negative affective experiences might influence whether an entrepreneur finishes their SBDC business-planning goal. Other participants recalled other negative emotions such as frustration and discouragement.

Sometimes participants recalled feelings of frustration when they encountered obstacles to their goals in the SBDC learning program. For example, Carolina described how her negative perception about her lack of persistence in the SBDC program affected her. She stated, “I kind of feel upset at myself for not giving it 110% full-force. Therefore, I think sometimes its frustration and anger toward myself. I beat myself up a lot.” Similarly, Sonya described a feeling of being overwhelmed while participating in the SBDC classes. She stated, “I felt like it was too much for me, maybe because I did not finish the classes. It felt very overwhelming.” These participants appeared to be engaging in negative self-talk. This can lead to a decrease in meeting performance goals.

Instructors and mentors also send messages of encouragement or discouragement. For instance, Mark had a chance to talk with a group of SBDC consultants about his invention. Mark stated, “When I had my first consultation meeting with the SBDC I had
goose bumps. I was ready to rock and roll when I first contacted the SBDC, about 3-months ago.” Later in the conversation, he implied that his motivation waned after his SBDC mentors failed to follow-up with him.

Joyce provided another example of how implicit and explicit messages from mentors can affect the motivation of adult students. While participating in a four-part business planning series, she described how the SBDC instructors sent a repeated message of how important the planning was to being successful as an entrepreneur. Joyce stated:

The classes provided me with the motivation to push onward with my business idea. However, I got the impression from the SBDC instructors that I should error on the side of caution. The instructors’ repeatedly stated that I should really do more planning before launching. The instructors emphasized how hard it is to be successful in a new business. Moreover, Sonya discussed how the instructors could have helped her overcome her fear of returning to the workshop after she missed several classes. Sonya stated:

I attended four classes. I missed a few due to work and meetings that I had to attend. I also thought that if I did not go to all the classes I would not get my certificate. Therefore, I decided to stop going. I think if I would have gotten a call about what was going on in the classes and if someone would have told me that it was fine that I had missed, I probably would have continued going.

While fear, frustration, and discouragement impede entrepreneurial progress and may even halt learner participation in the SBDC program, the next section discusses how
positive affective experiences help to sustain an entrepreneur through the learning process.

**Entrepreneurs’ Positive Emotions**

Several of those interviewed discussed how having their own business enabled them to feel positive emotions such as encouragement and confidence. These emotions helped them stay motivated with their learning program. While responding to a question concerning what motivated her to start taking the SBDC entrepreneurship classes, Carolina stated, “It’s kind of like not being able to do what you love. In life, I guess that is the goal, being able to do something you love to do. My passion was always pastries. I do love this. I love what I do.” Similarly, Sonya described the joy that she receives from performing in regional clubs. Sonya stated:

> I have been singing for 20 years. I began being paid for singing when I was 16, and then at the age of 18, I began working with bands. I then gained confidence in my original songs through encouragement from others, and I decided to start my own business in something that I loved to do.

Carolina also shared how her customers provide her positive comments that inspire positive feelings in her: Carolina said:

> I’ll get an order and the customers face alone is rewarding to me, so that reassures me that I’m good at what I do because if I was not then my customers would not spread the word like they do. Therefore, I must be good at what I do. Then I just do not continue because like I do not give it 110% because even if I have all the customers in the world I cannot open
up my shop right now. I am sorry I did not expect to be emotional (Crying).

The affective experience of these nascent entrepreneurs appears to be an important aspect of the entrepreneurs’ learning experience. Learners’ negative affective experiences may need to be mitigated, while positive affective experiences need to be nurtured to help nascent entrepreneurs’ overcome the obstacles that they experience during their SBDC learning program. The next section will review some of the frequently mentioned obstacles that the participants experienced when opening their businesses.

**Entrepreneurs’ Obstacles Preventing SBDC Learning Program Completion**

Many of the participants that were interviewed discussed obstacles that they had struggled to overcome during their participation in the SBDC learning program. In some cases, these obstacles prevented the participants from completing their entrepreneurial learning program. Sometimes these obstacles prevented the learners from launching their business venture. Sometimes it was apparent that the obstacles encountered to starting a business actually caused the participant to lose interest in completing the entrepreneurial learning program. This was especially true when participants realized that they did not have the financial resources to launch a business. This section discusses the obstacles that were identified by participants that prevented them from being successful with their entrepreneurial goals. The first section addresses the obstacle of finding financing to open the business, as that was most frequently identified as the greatest demotivating factor influencing their decision to discontinue the SBDC learning program.

**Entrepreneurs’ Lack of Financial Resources**

The major obstacle that nearly everyone mentioned in the interviews related to the difficulty that they perceived in obtaining financing to launch their business. The
difficulty in securing financing was due to a number of factors, which included poor credit or the lack of a financing partner. The idea of being denied financing from a bank or investor in some cases was enough to cause the participant to lose interest in completing the SBDC learning program. For example, Andrea, a young married professional with two children stated:

The biggest obstacle was how to go about getting the financing. My sister works at a credit union. I called an economic development professional, and he said, "Call the SBDC and get your business plan developed." I knew what I had to do, but I needed to find the demographics first. I pretty much have the business plan completed. I toured the potential building for my business. I discovered that it would take more than it is worth because of the extensive renovations that are needed. Therefore, my plans are on hold. Once I saw the financial need of the business I stepped back from moving forward so fast and stopped taking SBDC workshops. The financial aspect is the biggest obstacle right now stopping me from continuing with classes or starting the business. I figured out what this big plan was going be like financially, and now I know what I can afford. Everyone kept saying that I would not have any problem getting the money. However, after I looked at the general contractor numbers, I knew I could not do it right now. I dropped out of the learning program before I got to the financial content in the class because I knew I could not get the funding.

In Andrea’s case, the financial data analysis that she completed influenced her conclusion that securing financing for a family entertainment center was beyond what she would
have been able to borrow. Lack of financing for the business can decrease the motivation to continue with the SBDC learning program. Similarly, Carolina stated:

I think that unless I have the funds for the business in my bank account, I really should not come to the entrepreneurial classes and waste anyone’s time. That is my thought. That is what I am thinking, because I think that my mentors are going to come and guide me to the point that we all realize I cannot get the financing. However, at the end of the day it costs X amount of money to actually launch the business. At the end of the day my goal is to actually open up a shop. However, I am going to have to pay for that somehow, and I do not have the funds saved up. I do not want to waste anyone’s time. It helps to know that I could come for help without the money raised. Then when you say bank it throws me back again because I know for the bank you need credit, and I do not have that. Therefore, it throws me off again. So I know that my credit is not good, so I get excited again, and then you say bank, and then I’m like down again. Therefore, at the end of the day it is all about the lack of money, money, and money.

Similarly, Mark stated:

It is a lack of funding that has held me back. I have already contacted machine companies that I need to buy to manufacture the part. So it is just funding. What I learned after a handful of companies called me back is that I need about $45,000 for the mold that I need to have made to contract out for the production of my soccer cleat cleaner.
The lack of financing or even fear of the amount of financing involved in opening a business can cause an entrepreneur to discontinue their SBDC entrepreneurial learning program. While securing financing was a major obstacle for the participants, this obstacle was compounded by what appeared to be only a general knowledge of SBDC learning resources that were available to help nascent entrepreneurs through various phases of their businesses. The next section will explore how a lack of knowledge constrains the mentoring and other SBDC learning resources that participants received.

**Entrepreneurs’ Lack of Knowledge about SBDC Learning Resources**

Participants were asked about their awareness of the learning resources such as mentoring, online learning, and webinars available to help them during their participation in the program. It was apparent that many of the participants only had a general knowledge of the available resources to entrepreneurs. For example, James stated:

> Well the one thing that I did not quite understand at first was the amount of information that is available. I did not know the best place to get this business information. So one of my challenges was a lack of awareness about where to go to get the help. The other thing that I was amazed to learn was that the one instructor said that he had been working with some of his clients for 3 to 4 years. The instructor said, "If they need our help we stay with them." That was amazing to me. I was amazed by all of the expertise that was available for people starting a business.

Lack of awareness of resources was also apparent during the interview with Claudia. She stated:

> I was not aware that the SBDC provides one-on-one consulting to assist their clients. I attended just one class and I did not have the opportunity to
learn about all the services that SBDC provides to the business community.

I had a meeting with a SBDC consultant, but it was just one meeting.

Even though participants attended some learning classes before they dropped out, they did not have much awareness of the free SBDC mentoring available to them. For example, James stated, “No, I do not remember learning about the free consulting that is available to me. Somebody gave me a call and stopped by for a visit from a governmental organization offering services, but that was it.” Similarly, Carolina also seemed to have a lack of knowledge about the resources that were available to her. She stated, “That’s the thing. It is a lack of information on my side. All I know is I want a bakery shop. I have not broadened my horizons. I have not really thought about other resources. I just use the Internet.” Likewise, Joyce displayed a lack of awareness about SBDC learning resources. Joyce stated:

Initially, I had a business idea. I did not know where to go with it, and then I found these classes. I did attend Kutztown years ago. I was not sure where to go for help so I signed up for the classes. However, I did not hear about the SBDC mentors. Is that a free service as well? I did not know that I could reach out to the SBDC for mentoring help.

The lack of awareness about one-to-one consulting, mentoring, and coaching was pervasive among many of those interviewed.

Several participants mentioned that they had problems finding a SBDC business mentor. In describing a desire to find a mentor through the entrepreneurial learning program, Sonya stated:

I was hoping to find a person that could give me direction, either where to go or how to go about starting up my own business in
entertainment. I heard that there were individual sessions, but I thought I had to be called by someone to participate in the individual sessions. I wanted the individual sessions, but I never asked.

From a slightly different perspective, Mike spoke about his frustration in trying to locate a mentor with specific experience in the type of business that he was opening. Mike stated:

I was looking for the right guide or mentor. I do not want to make a mistake, and I would like someone as a mentor who has experience in this type of business. I would have more confidence if I had a guide or mentor with experience. I did not get a chance to talk to the mentors. I definitely want to connect with a mentor.

Others did find mentors, but only after, they had already opened their businesses. For example, Claudia stated:

The reality is that I did not really look for an adviser or a professional to help me analyze how to manage my business. I did not really have a mentor when I started my business. I did eventually find a mentor who gave me good advice. She was the owner of five daycare businesses in the area. She has 25 years of experience in the child-care business. I met with her after I started my business. She helped me a lot and gave some advice to find people who helped me with my business.

Mark was also hoping to find an SBDC mentor during the program. Mark stated, “I was hoping for a guide, an apprentice like I had in the carpenter brotherhood. That’s what I was looking for.” Unable to find someone to talk with about his invention, Mark reached
out to the father of one of his daughter's teammates. Mark stated, “I talked to him because I know he makes deals with venture capitalists. He said the venture capitalist fall through all of the time. They say they are interested, but then they back out.”

Participants recognized the need for a mentor, and they may reach out to someone within their existing network when they do not connect with an SBDC mentor. Many of the participants discussed the multiple roles that they had to fill while they were enrolled in the SBDC learning program. These issues are explored in the next section.

**Entrepreneurs’ Lack of Time and Scheduling Conflicts**

Entrepreneurs’ time constraints surfaced as an issue from several aspects. Lack of time was mentioned as a reason that some participants did not finish their learning program. Other learners mentioned scheduling conflicts as a factor that weighed on their decision to attend their learning program when compared to other priorities, such as taking care of their customers. As an example Martin stated:

I lacked time. Sometimes I wanted to go to my entrepreneurial learning program classes, but I could not because more customers would stop by or call, and I had to take care of their request. The time of day that the class was held was fine for me. However, I did not discipline myself. I did not tell my customers that this is the time that I close. I need to learn how to close at a certain time, but that is something that I did not do when I was attending classes.

Similarly, Martin referenced time constraints of his family, who were too busy running the daily business operations to be able to break away and attend class. Martin was attending the learning program on behalf of his family members who started the business. Martin also referenced time in relation to when the program should be held. He
recommended that weekends would be a preferred time to hold these types of programs.

James stated:

Primarily, the majority of us who attend the classes are adults and sometimes the lack of time is the problem. I imagine that the weekend would be the best time for most people to go to classes. It could be at any time because we take that time to do our personal things. Earlier in the day is better for people because the mind is more awake and ready to learn.

Pete also ran into scheduling conflicts, and he indicated that this was the second time that he had tried to finish the eight-week entrepreneurial program. Pete stated:

The first time I started the class I almost finished the course. During the last couple of weeks, I actually thought the course had ended. The second time I was here at the beginning, but I was not able to finish the program then either. My job and work hours got in the way.

In addition to having the necessary time for classes, others discussed how the time workshops were scheduled was an inconvenient time. Claudia stated:

The reason I did not come to the rest of the classes was that the director of my daycare business was also taking the classes. This did not surprise me [learning that her employee had signed up for the entrepreneurial class] because I already knew that she was thinking about opening up her own daycare. She was the person who talked to me about these classes. My problem was that new personnel started working in the daycare, and I thought that it was not a good idea to leave people who do not have enough experience working without the supervision of someone more experienced. Therefore, the main thing that got in my way to coming back
to the classes was that I did not want to leave my business alone because
my daycare director was also attending the classes. I felt it was my
priority to stay at my daycare and manage my business. I decided to give
my employee the opportunity to continue with the classes because I knew
that she wanted to start her own business. I just attended one class, but I
am still interested in taking the classes again because they are very
interesting and useful.

Similarly, Carolina discussed the conflicts that she encountered in trying to find the time
to balance her family responsibilities and attend classes at the same time. Carolina
stated:

As you might guess, many obstacles kept me from finishing the SBDC
entrepreneurial learning program. It was many things. I work and I have
two children. On the days that the classes were held my son had dance
class. So it was either I attend my class or I took my son to attend his
dance class. When I came to class, then he fell behind in his dance classes.
In addition, I had orders that had to be filled. So it was just other priorities,
either pay the bills now or go to class.

Time came up as a major hurdle that participants had to negotiate at different points
during the SBDC learning program. Time was a multifaceted obstacle for participants,
which is not unusual for adult learners. The next section will detail some of the
participants’ perceptions of the SBDC that they discussed relative to the SBDC
entrepreneurial learning program.

Entrepreneurs’ Perceptions of the SBDC Learning Program
During the interview, participants were asked to comment about their perceptions of the SBDC program in which they had enrolled. They were asked for recommendations for improving the SBDC learning program. This section discusses two categories related to participants’ perceptions about the entrepreneurial learning program: entrepreneurs’ perceptions about the SBDC learning program, and entrepreneurs’ recommendations for the SBDC program.

**Perceptions about the SBDC Learning Program**

Most participants easily recalled positive perceptions about the learning program in which they participated. Some spoke about these positive perceptions in relation to what they viewed were the positive learning outcomes that they received from the program. Others spoke positively about what they found to be most useful from the entrepreneurial learning program that they attended.

When reflecting on the program several participants recalled what they perceived as being the most valuable learning outcome that they received from the program. For example, Martin stated, "The SBDC learning program was well worth our time to go there because we looked at so many facets of the business like fixed cost, price points. I was surprised to learn how much help you could get as a small businessperson."

A little further, into the interview Martin added an additional insight that he gleaned from the learning program classes that he participated. Martin stated:

* I was so taken back by the expertise, and by the fact that it cost nothing. I could not sit here and say that I have any recommendations. When it came time to go to class, I looked forward to going. I think that preparing the business plan is essential for any new business, and I will be recommending that folks who come to our bank go to your program first.
to do the planning. Two people in the class wanted to start a business. One had to do with knitting a baby product the other had a mushroom growing business model. Both of them came to recognize that the market niche was not that big. Attending the classes might have killed their hopes and dreams. However, it snapped them into reality. Those two individuals seemed relieved. Your instructors say that we do not want to dash your hopes and dreams. However, we do not want you to go bankrupt either by trying to start a business that is not sustainable.

Others spoke specifically about things that they remember the instructors talking about. For example, Claudia stated:

The seminar offered by the SBDC was very good. I liked the instructor, Mr. Mike, very much because, even though I attended just one class, he really impressed me. Everything that he said was true. He mentioned all the mistakes that people make, like not having enough capital when they start the business. He was very specific and clear about the topic presented. I registered for the bilingual entrepreneurial classes even though I had already started my business because I realized, thanks to my friend, that there is always something to learn and that it is never too late for learning. I also wanted to take English classes, but I do not have the time because of my business. I usually do everything in my business from taking care of the kids to managing my business financially. I am the kind of person that if I do not do it myself, it probably will not be done to my satisfaction.
A few minutes later Claudia added some comments. Claudia stated, “These kinds of classes help me visualize where my potential mistakes are and then how to correct them in order to improve my business. This experience also allowed me to help other people avoid the same mistakes that I made.”

Pete spoke about how a book reading that he had been assigned to read for the class inspired him to register for the eight-week bilingual program. Pete stated:

The main reason that I started thinking about opening a business was that I read the book *The Richest Man in Babylon*. I started saving money in order to do something with it in the future, and then thought about investing in real estate. It was great because all the information from the classes that I attended was very helpful and informative. Some of the homework required a lot of thinking and analyzing rather than just looking it up online. The classes made me focus more and to think of the right questions.

A little further into the conversation Pete offered additional comments concerning his expectations from the SBDC learning program. Pete stated:

My main expectation was how to learn how to develop my business plan. I wanted to be able to show a bank that my business would make money and then obtain a bank loan to start it. Another problem that I needed help with was in accounting. I never finished the courses. Most sections of my business plan are started, but I never completed it. The most challenging part was how to calculate the amount of money you will be making and how much you need to actually start a business.
James, however, spoke about what he learned more generally from being in business for himself. James stated:

I registered for the entrepreneurial learning program because I wanted to learn more and assure myself because I was already thinking of business in the future. I realized that having my own business has given me the opportunity to make my own schedule, make more money when I need it, and take breaks when I need them.

Joyce recalled a significant learning outcome that she had achieved due to the course. Joyce had participated in the business-planning course and as she reflected on her experiences, she provided insight into how the program helped her rethink her business model. Joyce stated:

I have my business plan on paper. I went into the course with a different idea than what I left the program. I realized after the marketing workshop that my original idea would not be a viable business. It was because of what I learned that I was able to change the model. My realization of my flawed business model unfolded as a gradual process while I was attending the first set of classes.

Similarly, Sonya stated:

I thought the business success stories in the curriculum were good. The stories were the most helpful. I thoroughly enjoyed the book. Answering questions in groups was helpful. However, sometimes the group was too mixed, some participants were established entrepreneurs and some were early-stage entrepreneurs. Sometimes it was discouraging to hear how some people knew so much and what they were going to do; while, I, on
the other hand, had no idea and was lost. The brainstorming and ideas were helpful, however.

It was interesting to note that even though Sonya found the group discussion teaching method useful from one perspective, it also had a discouraging effect on her when she compared her progress to others in the class. A few minutes later into the interview, Sonya recalled how the homework helped her focus. She stated, “I did all the homework. I wanted to start an educational music program at schools. I found that the course provided direction while I was doing it and it helped me focus on my business plan.” In responding to a follow-up question concerning if there should be a charge for the course, Sonya stated:

For me, not paying anything for the course was a good thing and it got me excited about attending. Instantly, I wanted to join the class. And one of the main things that attracted me was that I already knew the instructor, Mr. Mike.

Sonya was highly motivated initially because she knew the instructor and the low cost of entry also motivated her to register for the learning program. Pete had a different experience than Sonya in relation to the perceived usefulness of the mix of established business owners and nascent entrepreneurs in the same class. Pete stated:

I would rate my experience with the program as an eight out of ten because I realized that investment in a business was not for everyone. There was a balance of reality along with encouragement. I took the bilingual entrepreneurial learning program. I found out about it through an email from Kutztown University after signing up for the SBDC E-newsletter. The instructor was great and he gave us all the information we
needed. He answered all the questions we asked. The people were also very helpful since most of them had established businesses, and we could draw from their experiences. Since there was a variety of businesses, they talked about how they promoted their products. That did not directly apply to us. Sometimes it was difficult tying the class discussion into my business involving real estate. However, I liked the mix of people that were in business already though because they could help us out by sharing the knowledge from their experiences with owning established businesses.

Pete found the mix of established business owners with nascent entrepreneurs useful from a learning perspective. However, Pete also recalled that some of the experiences that the established business owners shared were not easily transferable to his business. Several additional participants found some of the workshops more relevant to their learning goals than others.

Some workshops and learning activities had a more lasting impact on some learners. For example, Joyce recalled how the first workshop was the most useful to her because of the nature of the topic. Joyce stated:

The first workshop “How to Start a Business” of the business planning series was most useful. Mr. Judge [an attorney instructor] was most helpful because the legal issues are very important to me. I wanted to learn more about the intellectual property legal issues. That is one area that I would like to learn more about. One of the most challenging things about starting is the legal structure. He talked about the intellectual property aspect. Initially, I had a business idea and did not know where to go with it and then I found these classes.
Joyce also offered insight concerning what was not useful to her personally as she participated in the four-part business planning series. Joyce stated:

The very last class on funding the business did not really apply to me. I did not need money so it was not that helpful. It has been a couple of months since taking it. He was talking about finance and stuff related to funding, and I was a little lost. I did not need money. I remember in that same class that they were discussing the funding aspect of starting a business.

When participants could not relate the content of the course discussion to their specific situation, they tended to not find it that useful. Some participants found some SBDC learning delivery methods convenient, and some thought that navigating and selecting amongst so many learning resources was overwhelming.

Andrea offered a critique of some of the SBDC learning delivery methods. She reflected on how the ability to talk with a mentor on the phone helped her better understand the online learning program that she was taking from the KU SBDC website. Andrea stated:

I liked the actual phone conference call webinar. The online learning was overwhelming. However, after the conference call webinar the online learning made more sense. I knew what online learning I should be taking. I loved the webinar and online learning because it was all at my own convenience. I was taking the online learning late at night, and I appreciated the convenience of the flexible online learning. Nothing has kept me from taking part in other online learning. Once I get this house sold then I will pick up with my idea and move forward.
Joyce, having left her corporate career, also commented on the technology methods used to deliver education and content to participants. Joyce stated, “I did one webinar before I took the classes. It was like an online course. I did it on my own time. I thought it was helpful. But it is better to learn it in a classroom with real people.”

Mike commented on the learning program in which he participated. Mike stated:

Actually, I wanted to take other courses, but they were for other types of businesses. I wanted to continue but I did not feel it was totally for me. I am looking for someone with specific information, not quick rich schemes.

There were some scenarios and examples about success stories of people starting successful businesses that I was able to relate to.

At the end of each interview, participants were asked if they had any recommendations for improving the SBDC learning program. Those are summarized in the next section.

**Learners’ Recommendations**

Some participants offered their recommendations for improving the SBDC program in the future. Mike offered some specific recommendations based on his participation in the business-planning course. Mike stated:

The workshops were too general. Half of the content was related to how to set up a retail business. Most examples were geared toward retail. The examples they talked about were not relevant to me. Each type of business does not employ the same type of processes during the start-up phase. I would have continued if it were more relevant. I wanted to
continue. However, really the courses were for retailers. I did not feel I got what I was looking for [someone with real estate experience].

Joyce made a recommendation related to her preference for course delivery. Joyce stated, “I would like to take more classes by webinar format. Like the government marketing for women.” However, Claudia offered a recommendation concerning the content of the course. Claudia stated:

I think that one of the things that would be important to cover in the small business course would be the regulations, codes, and requirements that are necessary for different kinds of business, such as a daycare, restaurant, garage, mechanic shop, etc. They should review the regulations and codes required by the city and the state.

Later in the conversation concerning the question of recommendations, Claudia added some additional comments. Claudia stated:

The class should not have so many people in them. They should not have as many students. We were not able to get to everyone’s questions answered. I think it should be a maximum of 12 people in the class. Everyone should be at the same stage of business. I think the classes should even be longer, in terms of the number of weeks for the program. That way the individual classes could be shorter. In addition, there were some people who were not truly interested, and they would disrupt the class by talking and interrupting. I think people should be able to talk more about their business in the class as well. It makes it more engaging. I think there could have been a better balance. There was a lot of lecture and not enough activities. I think the activities were very helpful.
Similarly, Carolina stated, “And then all of our businesses were completely different and we were talking about barber shops and everything, and it was just weird. Maybe a smaller class would be better.” Mixing existing business owners in with entrepreneurs who were just starting a business received the most discussion. While some found it helpful to have a mix others found it very distracting. This concludes the theme discussion presented by the various participants engaged in the qualitative phase of this study.

**Summary**

Participants discussed a wide range of topics during the semi-structured interviews. These topics ranged from motivation, the role of family, the affective experiences that they felt while involved in the course, and their recommendations. In addition, they openly discussed the obstacles that prevented them from continuing with their learning program, as well as areas in which they lacked knowledge. Finally, the participants shared some useful observations and comments for future program developers to consider. The major obstacle that was discouraging participants continuation in the entrepreneurial learning program was the realization that finding funding for their business was not practical. Family can act both supportively and, at times, as a source of conflict for the entrepreneur. SBDC learners are frequently motivated by factors other than profit. Many of the participants in this study stated that they were motivated by pursuing an internal passion, and for the enjoyment from what they do. This resulted in a sense of independence and freedom.

The recommendations were varied. Some enjoyed online learning and flexibility with webinar programming. Others preferred live group-oriented learning. Some found the mix of existing business owners with nascent entrepreneurs to be distracting. Others
found this mix helpful; they were motivated by hearing that others like themselves could accomplish their business goals. Most everyone agreed that smaller class sizes would be helpful, as some found it difficult to get answers to their specific questions during the class time. The next chapter presents the quantitative data.
CHAPTER 5

QUANTITATIVE

The twofold purpose of this mixed method research study was first, to identify components that would help SBDC entrepreneur educators better understand nascent entrepreneurs’ discontinuance with their short term entrepreneurial learning program in a formal setting and second, to explore how the comprehensive SDL learning model might help to inform our understanding of nascent entrepreneurial learning within a short-term educational program.

With the purpose of this study aimed at discovering both exploratory and descriptive aspects of entrepreneurial learning in a specific context, a sequential mixed method study design was deemed appropriate. This quantitative phase of the study was guided by the second research question of this study that was interested in determining which components connected with the comprehensive SDL model contribute to nascent entrepreneurial participation and discontinuance in the SBDC learning program. In addition, this phase of the study was guided by the third research question that was interested in determining what learner characteristics might help to identify nascent entrepreneurs who are at risk for discontinuance in the SBDC learning program. The analysis from this phase of the study also contributed toward answering the fourth research question of this study that was interested in how the comprehensive SDL model might help to inform SBDC educators about student discontinuance in the SBDC learning program.

Answering these three research questions required me to include a quantitative phase, which is why the sequential mixed research method was selected for this study.
The quantitative findings presented in this chapter also help to verify and explain the findings presented previously in the qualitative findings. In addition, the findings in this chapter help to answer how the comprehensive SDL model helps to inform our understanding of nascent entrepreneurs’ participation and discontinuance in the SBDC learning program and which learner characteristics assist in identifying those students who are at risk for discontinuance with their entrepreneurial learning.

This chapter first provides a background summary for the reader, which includes the participant’s background and their perceptions about the SBDC learning program. Then the key results of the SPSS statistical tests, which include the principal component analysis, t-tests, correlations and chi-square tests results, are reported in table format.

*Schema:*

Participants Background

Demographical Information of Participants

Participation and Perceptions of the SBDC Program

Results

Principal Component Model

Motivation

Social/emotional interaction

Sherpa facilitation

Self-management

Self-monitoring

Self-directed readiness

Contextual congruency

Expectancy
Correlations

Learner Characteristics

Summary

The participants’ backgrounds, which include basic demographic data and attitudinal data concerning the SBDC program, are presented in table format in the next section.

Participants’ Backgrounds

The respondents’ backgrounds appeared to resemble, along most demographic characteristics that are collected by the SBDC program, the background characteristics of those that the SBDC typically serves. The first section summarizes the key characteristics of the participants for this study. The second section addresses the participant’s perceptions about the SBDC program.

Demographic Information of Participants

This section summarizes the five basic demographic variables concerning the background of the respondents who participated in this study. The 243 valid returned surveys represents a 12% response rate (Table 1).

Table 1 shows that males represented 51% of those who responded to the survey while 44% of the participants who responded were females. Couples who responded jointly are assumed to make up the other 5%.

Table 1

<table>
<thead>
<tr>
<th>Gender of Participants</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>44</td>
<td>107</td>
</tr>
<tr>
<td>Male</td>
<td>51</td>
<td>124</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>243</td>
</tr>
</tbody>
</table>
Table 2 shows that more than 90% of the respondents were over 35 years of age. Nearly 10% identified themselves as 65 or older. Thirty-one percent of participants were between 45 to 54 years old. Only one respondent identified themselves as between 18 to 24 years of age.

Table 2

<table>
<thead>
<tr>
<th>Age</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-24</td>
<td>.04</td>
<td>1</td>
</tr>
<tr>
<td>25-34</td>
<td>8.2</td>
<td>20</td>
</tr>
<tr>
<td>35-44</td>
<td>16.9</td>
<td>41</td>
</tr>
<tr>
<td>45-54</td>
<td>31.3</td>
<td>76</td>
</tr>
<tr>
<td>55-64</td>
<td>22.2</td>
<td>54</td>
</tr>
<tr>
<td>65 and over</td>
<td>9.9</td>
<td>24</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>243</td>
</tr>
</tbody>
</table>

Typically, the SBDC program serves a slightly higher average number of college students because of their location on college campuses. Consequently, this sample might be underrepresented with respect to college age learners.

Table 3 displays the educational background of the participants. Close to 95% of the respondents reported having some college or technical schooling. Over 30% of the respondents had completed either a master or doctoral degree.

Table 3

<table>
<thead>
<tr>
<th>Education</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some High School</td>
<td>.8</td>
<td>2</td>
</tr>
<tr>
<td>High School or GED</td>
<td>4.5</td>
<td>11</td>
</tr>
<tr>
<td>Some college or technical school</td>
<td>29.6</td>
<td>72</td>
</tr>
<tr>
<td>Four year degree</td>
<td>30.0</td>
<td>73</td>
</tr>
<tr>
<td>Master degree</td>
<td>20.6</td>
<td>50</td>
</tr>
<tr>
<td>Doctorate</td>
<td>8.6</td>
<td>19</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>243</td>
</tr>
</tbody>
</table>
The next demographic variable that participants were asked to self-identify concerned their family status. Table 4 shows that 48.6% of the respondents were married or partnered with children.

Table 4

<table>
<thead>
<tr>
<th>Family Status</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single (no children)</td>
<td>14.8</td>
<td>36</td>
</tr>
<tr>
<td>Married/partnered (no children)</td>
<td>18.9</td>
<td>46</td>
</tr>
<tr>
<td>Married/partnered (with children)</td>
<td>48.6</td>
<td>118</td>
</tr>
<tr>
<td>Single with children</td>
<td>7.8</td>
<td>19</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>243</td>
</tr>
</tbody>
</table>

Close to 8% were single with children. Single or married partners with no children represented a little over 36% of the respondents. Close to 19% were married with no children. Nearly 65% of the respondents reported having children and close to 8% of these were single with children. Nearly 15% of the participants were single.

Another follow-up question asked respondents to identify their household income. Table 5 indicates that over 75% of the respondents reported household income over $50,000 yearly. Close to 25% of the respondents reported household income over $100,000.

Table 5

<table>
<thead>
<tr>
<th>Income</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $49,999</td>
<td>21.4</td>
<td>52</td>
</tr>
<tr>
<td>$50,000 to $74,999</td>
<td>26.7</td>
<td>65</td>
</tr>
<tr>
<td>$75,000 to $99,999</td>
<td>13.2</td>
<td>32</td>
</tr>
<tr>
<td>$100,000 to $149,999</td>
<td>13.6</td>
<td>33</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>6.2</td>
<td>15</td>
</tr>
<tr>
<td>Over $200,000</td>
<td>4.5</td>
<td>11</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>243</td>
</tr>
</tbody>
</table>
The next section is a summary of participants’ stated perceptions of the SBDC program and it reports on the types of learning modalities in which they participated.

**Participation and Perceptions of the SBDC Program**

This section summarizes what respondents stated about their participation with different aspects of the SBDC educational programs. The survey instrument also asked the participant’s why they registered for the SBDC learning program. Respondents were given six structured responses that were developed based on the qualitative section and they were able to respond to more than one category if it was relevant. The response categories also provided respondents with an opportunity to specify a different reason than those identified in the qualitative phase of the study. Table 6 shows that the majority of respondents entered the program with specific questions for which they were seeking answers. The second most frequently mentioned reason that participants stated for entering the SBDC learning program was to confirm that they were doing things the right way. Networking, enjoyment from learning activities, a desire to find a mentor, and seeking help for a struggling business were respectively, the third, fourth, fifth, and sixth most frequently mentioned reasons for entering the program.

Table 6

<table>
<thead>
<tr>
<th>Reason for Seeking out SBDC Learning Program</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>I wanted answers to specific question</td>
<td>54.3</td>
<td>132</td>
</tr>
<tr>
<td>I wanted to confirm if I was doing things the right way</td>
<td>42.4</td>
<td>103</td>
</tr>
<tr>
<td>I was hoping to network with other entrepreneurs</td>
<td>25.1</td>
<td>61</td>
</tr>
<tr>
<td>I am just the type of person that likes to learn</td>
<td>21.4</td>
<td>52</td>
</tr>
<tr>
<td>I was hoping to find a mentor</td>
<td>20.2</td>
<td>49</td>
</tr>
<tr>
<td>I was struggling with my business</td>
<td>14.4</td>
<td>34</td>
</tr>
<tr>
<td>I was told by an advisor that I should attend</td>
<td>10.3</td>
<td>25</td>
</tr>
</tbody>
</table>
The least frequently mentioned reason for entering the program was that an advisor recommended the program.

The SBDC program offers live workshops, online learning modules, individual mentoring with a consultant and specific content workshops. A question asked respondents to identify the type of learning modalities that the SBDC offers and they were able to check more than one modality.

Table 7 shows the percentage of the respondents who participated in various learning programs supported by the SBDC. Over 90% of respondents indicated that they participated in the business planning webinar. A little over 50% of the respondents participated in some form of mentoring relationship and about the same percentage of respondents participated in live workshops. Only 20% reported using some form of online learning modules offered through the SBDC. Another follow up question asked participants to identify the subject matter of the workshops that they completed while participating with their SBDC entrepreneurial learning program.

Table 7

<table>
<thead>
<tr>
<th>Types of Learning Modalities</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business planning webinar</td>
<td>90.1</td>
<td>219</td>
</tr>
<tr>
<td>Live workshops</td>
<td>53.9</td>
<td>132</td>
</tr>
<tr>
<td>Consulting/mentoring</td>
<td>53.1</td>
<td>129</td>
</tr>
<tr>
<td>Online learning</td>
<td>20.2</td>
<td>49</td>
</tr>
</tbody>
</table>

Table 8 displays the results of the workshop subject matter that learners participated. The first step workshop is designed to help nascent entrepreneurs address basic technical issues related to starting a business and it was the most frequently attended workshop with 26.7% participating.
Table 8  

*Learner Completion Level by Subject*

<table>
<thead>
<tr>
<th>Subject</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>First step workshop</td>
<td>26.7</td>
<td>65</td>
</tr>
<tr>
<td>Other</td>
<td>17.3</td>
<td>42</td>
</tr>
<tr>
<td>Government marketing</td>
<td>14.4</td>
<td>35</td>
</tr>
<tr>
<td>Business planning</td>
<td>14.0</td>
<td>34</td>
</tr>
<tr>
<td>Marketing</td>
<td>9.1</td>
<td>22</td>
</tr>
<tr>
<td>Pitch-then-plan</td>
<td>5.3</td>
<td>13</td>
</tr>
<tr>
<td>Finance/budget</td>
<td>1.2</td>
<td>3</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>243</td>
</tr>
</tbody>
</table>

This first step workshop was followed by 14% of the respondents participating in either the government marketing workshops or the business planning workshops. The pitch-then-plan special subject workshops were attended by approximately five percent of the participants, while nine percent and one percent attended marketing and finance workshops, respectively.

The next three tables display: what participants identified as the most frequent obstacles that they encountered while completing their SBDC learning program, the participants’ recommendations for the program and the participants’ perceptions concerning if they successfully completed their entrepreneurial learning goals.

Participants were asked to identify the most common challenges among five alternatives that were developed through the qualitative phase of the study. Table 9 displays what participants identified as the five most frequent obstacles: problems balancing work and my time for learning, managing priorities between family needs and learning, maintaining motivation to continue when hitting roadblocks to my entrepreneurial goals, securing support from family and friends to continue starting my business and securing financing to launch the business.
Table 9

<table>
<thead>
<tr>
<th>Greatest Challenges Encountered During the Program</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balancing work and learning</td>
<td>21.8</td>
<td>53</td>
</tr>
<tr>
<td>Other</td>
<td>18.9</td>
<td>46</td>
</tr>
<tr>
<td>Securing financing</td>
<td>18.1</td>
<td>44</td>
</tr>
<tr>
<td>Maintaining my motivation when hitting roadblocks</td>
<td>16.5</td>
<td>40</td>
</tr>
<tr>
<td>Managing priorities between family and learning goals</td>
<td>9.5</td>
<td>23</td>
</tr>
<tr>
<td>Securing support from family and friends</td>
<td>4.9</td>
<td>12</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>243</td>
</tr>
</tbody>
</table>

The most frequently identified challenge that participants identified was balancing work and learning, which 21.8% of participants cited. The next most frequently identified challenge, with 18.1% of respondents weighing in, was difficulty in securing financing for their business. This was followed by 16.5% of participants indicating that maintaining their motivation when hitting roadblocks was a major challenge. To a much lesser degree, 9.5% of the participants identified managing priorities between families and learning goals as a challenge and 4.9% of the participants identified securing support from family and friends as a challenge.

The next question on the survey asked respondents to identify the statement that most correctly related to their current entrepreneurial learning status. Table 10 summarizes the respondent’s replies. Over 45% indicated that they had received the information that they needed, 34% indicated that if they had had more time they would have continued the program and 20% indicated that they had decided to put their entrepreneurial goals on hold. The next question asked respondents if they felt that they had completed the SBDC learning program successfully. This variable is the dependent variable that is used in all of the subsequent analysis with the independent variables of interest to this study.
Table 10

<table>
<thead>
<tr>
<th>Current Business Planning Status</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>I received the information that I needed</td>
<td>45.8</td>
<td>97</td>
</tr>
<tr>
<td>If I had more time I would continue</td>
<td>34.0</td>
<td>72</td>
</tr>
<tr>
<td>My entrepreneurial goals are on hold</td>
<td>20.3</td>
<td>43</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>49.9</strong></td>
<td><strong>243</strong></td>
</tr>
</tbody>
</table>

As a study guided by the SDL framework it was important to rely on the participants own assessment of how successful they were in the program. Therefore students were asked to assess if they were successful or not successful in completing their learning goals. Table 11 indicates that of those who attended SBDC learning programs 59.3% viewed themselves as falling short of successfully completing their learning goals and 39.5% viewed themselves as successfully completing their learning goals. This was an unexpectedly high finding because it is related to the original purpose of this study and it is a defining dependent variable that all of the t-tests utilize in determining the critical variables in defining the mean differences between the two groups of learners.

Table 11

<table>
<thead>
<tr>
<th>Students Perception Concerning Their Successful Completion</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>I successfully completed my learning goals</td>
<td>39.5</td>
<td>96</td>
</tr>
<tr>
<td>I did not successfully complete my learning goals</td>
<td>59.3</td>
<td>144</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>243</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 12 reflects how respondents perceived and classified their current business startup status. Only 7.4% indicated that they had determined that entrepreneurship was no longer a viable career option. Not surprisingly, 38.3% indicated that they had started the business and were seeking more help. Yet, only 15.2% indicated that they had started the business and it was struggling. Twenty-one percent indicated that the revenue
generated from their business represented their only source of income. This concludes the reporting of the participants’ perceptions of the SBDC learning program and the key demographic data collected on the respondents to this study.

Table 12

*Current Status of Business Development*

<table>
<thead>
<tr>
<th>Status</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>I started the business and I’m seeking more help</td>
<td>38.3</td>
<td>93</td>
</tr>
<tr>
<td>I started the business and it’s my only income</td>
<td>21.0</td>
<td>51</td>
</tr>
<tr>
<td>I started the business and it’s struggling</td>
<td>16.9</td>
<td>41</td>
</tr>
<tr>
<td>Other</td>
<td>15.2</td>
<td>37</td>
</tr>
<tr>
<td>Entrepreneurship is just not for me</td>
<td>7.4</td>
<td>18</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>243</td>
</tr>
</tbody>
</table>

The next section reports on the results and statistical output generated to address the key research questions and their hypotheses.

**Results**

Two of the major research questions that guided this study were converted into hypotheses to guide the appropriate statistical analysis. The data and statistical test reported in this section are integrated with the qualitative data and interpreted further in Chapter 6 under the discussion and conclusion section.

The survey instrument was developed from qualitative data in concert with the comprehensive SDL model in an attempt to investigate the differences between students who discontinued their learning program using participants’ perceptions of their experience in the SBDC learning program. Hypotheses were created to help answer the two research questions through quantitative analysis. Hypotheses were also created to address the anticipated differences in means of student characteristics between the two groups of learners (i.e. those who felt they completed all of their learning goals and those
who did not perceive themselves as completing their learning goals). The specific dimensions that were analyzed and their respective hypotheses are reported in the order in which the components were considered most relevant in explaining the variance in the principal component model.

The next section reports on the findings resulting from the principal component analysis, the t-tests for independent means, the correlations, and the chi square statistic findings.

**Principal Component Analysis**

This section discusses the component model that was generated to help reduce the variables down to fewer dimensions that were significant to entrepreneurial learning attrition. Principal component analysis is a statistical test that attempts to reduce the correlation matrix to its underlying dimensions. It uses a technique that clusters variables that correlate highly, together into one dimension. For example, in this study I was interested in understanding what variables make up dimensions that would characterize learner self-management, self-monitoring and motivation. Principal component analysis provides a quantitative method to test what variables are correlated and that cluster together to help define these types of dimensions. Also, in this exploratory study I was interested in determining what other data reduction might be able to be achieved through the principal component analysis, in an effort to better inform my understanding of nascent entrepreneurial discontinuance. For a more complete overview of the principal component analysis, the reader is referred to Chapter 3 for additional information about the procedures used for the analysis.

To address the three research questions guiding this phase of the study a series of logically ordered hypotheses were developed to help guide me in the analysis.
The first hypothesis stated: *The twenty-six learner related variables will produce a principal component model that explains a substantial portion of the variance with a viable KMO over 70, \( p < .05 \) and a determinant value > .00001.*

Several iterations were conducted for the principal component analysis. The initial principal component analysis was performed with eigenvalues greater than 1, with no rotation selected. The initial test procedure excluded missing data cases list wise and the regression method was selected for computation purposes. This initial principal component analysis resulted in five relevant components with a KMO of .823, \( p < .05 \). On this initial analysis, the model explained 69.2 percent of the variance. The initial model loaded on several dimensions that were aligned with the SDL comprehensive learning model. A KMO score over .70 is considered valid and a score value between .8 and .9 is considered great indicating that principal component analysis is appropriate for this data (Field, 2005).

Although this initial analysis yielded positive results, a second principal component analysis was performed. For the second analysis, I selected the Promax rotation after concluding that one or more of the components would likely be correlated with at least one other component. When this condition exists, it is recommended to use one of the oblique rotations, such as the direct or Promax rotation (Field, 2005). In addition, for the second analysis the missing case values were replaced with the mean for the variable as opposed to a list wise procedure. This is appropriate if there are relatively few missing data cases (Field, 2005). I evaluated the number of missing data cases and after concluding that the number of missing data was minimal, the mean of the individual latent variables were selected to replace missing cases. Similar to the first analysis, the regression method was used for computing the scores. Finally, in the second principal
component analysis procedure I elected to reduce the eigenvalue from 1 to .7, as it is an acceptable data reduction procedure (Jolliffe, 1972).

Table 13

*Principal Component Loadings: Pattern Matrix Results*

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social/Emotional interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learned from others</td>
<td>.947</td>
<td>-.107</td>
<td>.155</td>
<td>-.376</td>
<td>.002</td>
<td>.219</td>
<td>-.122</td>
</tr>
<tr>
<td>Reduced my anxiety</td>
<td>.719</td>
<td>.208</td>
<td>-.125</td>
<td>.115</td>
<td>-.063</td>
<td>-.008</td>
<td>.083</td>
</tr>
<tr>
<td>Feel more confident</td>
<td>.703</td>
<td>.267</td>
<td>-.070</td>
<td>-.113</td>
<td>.026</td>
<td>-.065</td>
<td>.150</td>
</tr>
<tr>
<td>Talked with others</td>
<td>.617</td>
<td>-.121</td>
<td>.174</td>
<td>.170</td>
<td>.001</td>
<td>.132</td>
<td>.020</td>
</tr>
<tr>
<td>Reduced my frustration</td>
<td>.580</td>
<td>.221</td>
<td>-.102</td>
<td>.208</td>
<td>-.017</td>
<td>.006</td>
<td>-.044</td>
</tr>
<tr>
<td>Motivated at end</td>
<td>.425</td>
<td>.048</td>
<td>.228</td>
<td>.112</td>
<td>-.057</td>
<td>.047</td>
<td>.288</td>
</tr>
<tr>
<td>Sherpa facilitation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mentor had experience</td>
<td>.091</td>
<td>.950</td>
<td>.193</td>
<td>-.114</td>
<td>-.073</td>
<td>-.072</td>
<td>-.162</td>
</tr>
<tr>
<td>Instructor helpful</td>
<td>.161</td>
<td>.933</td>
<td>.057</td>
<td>-.160</td>
<td>.077</td>
<td>-.099</td>
<td>.004</td>
</tr>
<tr>
<td>Inst. let student set pace</td>
<td>.015</td>
<td>.814</td>
<td>-.013</td>
<td>.115</td>
<td>.091</td>
<td>.051</td>
<td>-.112</td>
</tr>
<tr>
<td>Learning was relevant</td>
<td>-.017</td>
<td>.453</td>
<td>-.111</td>
<td>.177</td>
<td>.046</td>
<td>.388</td>
<td>.025</td>
</tr>
<tr>
<td>Linked to other learning</td>
<td>.303</td>
<td>.318</td>
<td>-.111</td>
<td>.130</td>
<td>.011</td>
<td>.230</td>
<td>-.012</td>
</tr>
<tr>
<td>Self-management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I set time frames</td>
<td>.048</td>
<td>.104</td>
<td>.751</td>
<td>.472</td>
<td>.032</td>
<td>-.187</td>
<td>-.223</td>
</tr>
<tr>
<td>I am self-disciplined</td>
<td>.158</td>
<td>-.001</td>
<td>.727</td>
<td>.138</td>
<td>.035</td>
<td>-.118</td>
<td>.172</td>
</tr>
<tr>
<td>I manage time well</td>
<td>-.076</td>
<td>.071</td>
<td>.700</td>
<td>.015</td>
<td>.014</td>
<td>.161</td>
<td>.177</td>
</tr>
<tr>
<td>Self-monitoring</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I assessed my progress</td>
<td>-.107</td>
<td>-.062</td>
<td>.216</td>
<td>.884</td>
<td>.001</td>
<td>.073</td>
<td>-.013</td>
</tr>
<tr>
<td>Critical evaluation</td>
<td>-.049</td>
<td>-.050</td>
<td>.166</td>
<td>.645</td>
<td>.047</td>
<td>.061</td>
<td>.289</td>
</tr>
<tr>
<td>I enjoyed the challenge</td>
<td>.305</td>
<td>.041</td>
<td>-.030</td>
<td>.371</td>
<td>-.199</td>
<td>.076</td>
<td>.255</td>
</tr>
<tr>
<td>Self-directed readiness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I evaluate my learning</td>
<td>-.092</td>
<td>.002</td>
<td>.063</td>
<td>.128</td>
<td>.903</td>
<td>.119</td>
<td>-.146</td>
</tr>
<tr>
<td>I set learning goal</td>
<td>-.082</td>
<td>.088</td>
<td>.040</td>
<td>-.006</td>
<td>.832</td>
<td>-.086</td>
<td>.132</td>
</tr>
<tr>
<td>I make learning decision</td>
<td>.152</td>
<td>.005</td>
<td>-.081</td>
<td>-.221</td>
<td>.624</td>
<td>.019</td>
<td>.385</td>
</tr>
<tr>
<td>Contextual Congruence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easy to understand</td>
<td>.148</td>
<td>-.008</td>
<td>-.079</td>
<td>-.010</td>
<td>-.032</td>
<td>.803</td>
<td>.044</td>
</tr>
<tr>
<td>Free from distraction</td>
<td>.235</td>
<td>-.107</td>
<td>.305</td>
<td>-.044</td>
<td>.059</td>
<td>.758</td>
<td>-.252</td>
</tr>
<tr>
<td>Program easy to access</td>
<td>-.028</td>
<td>.072</td>
<td>-.220</td>
<td>.246</td>
<td>.027</td>
<td>.758</td>
<td>.012</td>
</tr>
<tr>
<td>Expectancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I possess experience</td>
<td>.065</td>
<td>-.111</td>
<td>.020</td>
<td>.071</td>
<td>.111</td>
<td>-.126</td>
<td>.884</td>
</tr>
<tr>
<td>I possess knowledge</td>
<td>.165</td>
<td>-.192</td>
<td>.062</td>
<td>.219</td>
<td>.058</td>
<td>-.037</td>
<td>.762</td>
</tr>
<tr>
<td>Motivated at entry</td>
<td>-.402</td>
<td>.310</td>
<td>.369</td>
<td>-.172</td>
<td>-.147</td>
<td>.235</td>
<td>.496</td>
</tr>
</tbody>
</table>

*eigenvalue = .7, Promax rotation, Regression Method, Means Replaced Missing Data*

Table 13 displays the principal component results of the pattern matrix results for the second generated model. This model yielded a KMO value of .912, and it was
significant ($p < .001$, df: 325). This model produced seven components that were loaded with variables and it confirmed one of the key research questions of this study. KMO values above .9 are considered superb and this model fits the superb classification with a KMO value of .912 (Field, 2005). For future reference, this model is referred to as the emerging entrepreneurial SDL model.

Figure 1 displays the scree plot for the seven components of the model. The decision on how many components to select in the final model is a subjective one.

![Scree Plot](image)

Figure 1 displays the scree plot for the nascent entrepreneurial SDL model principal component nascent entrepreneurial SDL model.

In addition, as shown in Table 14, the nascent entrepreneurial SDL model explained over 74% of the variance in the model, which was slightly higher than the initial component model. Given the improved model provided by the seven components,
it was determined by the researcher to report only the second model for this research study. The scree plot shows that the model could have included only three or five components. However, I believed that including all of the seven components actually produced a model that more closely aligns with the intentions of this study.

Table 14 shows that the first and second components explained over 52% of the variance in the model with all seven components explaining 74% of the variance in the model.

Table 14

<table>
<thead>
<tr>
<th>Component</th>
<th>Total</th>
<th>% of Variance</th>
<th>Cumulative %</th>
<th>Rotation SSL Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social/Emotional</td>
<td>10.876</td>
<td>41.832</td>
<td>41.832</td>
<td>7.816</td>
</tr>
<tr>
<td>Sherpa facilitation</td>
<td>2.724</td>
<td>10.478</td>
<td>52.310</td>
<td>7.410</td>
</tr>
<tr>
<td>Self management</td>
<td>1.504</td>
<td>5.786</td>
<td>58.096</td>
<td>3.675</td>
</tr>
<tr>
<td>Self monitoring</td>
<td>1.460</td>
<td>3.707</td>
<td>63.711</td>
<td>5.690</td>
</tr>
<tr>
<td>Self directed</td>
<td>.964</td>
<td>3.612</td>
<td>67.418</td>
<td>2.961</td>
</tr>
<tr>
<td>Contextual</td>
<td>.939</td>
<td>3.035</td>
<td>71.030</td>
<td>6.749</td>
</tr>
<tr>
<td>Expectancy</td>
<td>.789</td>
<td>2.574</td>
<td>74.065</td>
<td>6.924</td>
</tr>
</tbody>
</table>

SSL: Sum of Squared Loadings

Table 15 displays the KMO and Bartlett’s test results for the nascent entrepreneurial SDL model. The model resulted with a KMO value of .912, ($p < .001$, df=325). This KMO value is classified as superb (Field, 2005).

Table 15

| Kaiser-Meyer-Okin Measure of Sample Adequacy | .912 |
| Bartlett’s Test of Sphericity Approximate Chi-Square | 2546.404 |
| Degrees of Freedom                          | 325  |
| Significance                                | >.001|
| Determinant                                 | 1.53E - 008 |

KMO over .9 is considered superb (Field, 2005)

A determinant value > .00001 is a criterion for confirming that the components are not so highly correlated with each other to render the model invalid.
A key research question for this study was focused on determining differences between those learners who perceived that they were successful in completing their learning program goals and those who did not report success. The next section presents data results in table format from t-test for independence means organized around key components of the nascent entrepreneurial SDL model.

Before proceeding to investigate how the individual component variables compare with the means between the two groups, there was an interest in determining how the two motivation questions correlated with each other. Therefore, the two motivation variables are investigated and reported on before comparing the 26 variables that comprised the component model.

Motivation. The first area of interest was in determining how the two questions pertaining to motivation correlated with each other and if they helped to predict learner success based on the dependent variable that learners specified, if they perceived as successfully completing their SBDC learning goals. These two questions asked participants to respond to the statement by selecting a response on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The first variable stated, “I was highly motivated when I entered the program.” One of the final variables in the instrument stated “I was highly motivated toward the end of my SBDC program.” These two variables are investigated with a t-test and a correlation analysis.

The second and third hypotheses were stated as: There will be a significant correlation between the two motivation variables (p < .05), and the learner success group will have significantly higher mean values than the non-success group on the two variables comprising the motivation construct (p < .05).
A correlation analysis between these two variables helped to determine if they were as highly correlated as one might expect. Because this data is ordinal, the Spearman correlation is utilized instead of the Pearson correlation. It was assumed that those with a higher degree of entering motivation would also have a higher degree of motivation toward the end of their program so the test of significance is one-tailed. As expected, the two statements are moderately correlated with a Spearman rho correlation equal to .392 \( (p < .01 \ n=209, \ n=187) \).

To determine the relationship between the motivation variables to the dependent variable (those who perceived themselves as successful) an independent t-test was performed. In the remainder of this study, this dependent variable (i.e., successful completion or not successful completion) is referenced as either the two groups of learners or the success group. Table 16 shows that on average a participant’s ending motivation was significantly different \( p < .05 \) between the two groups of learners.

Interestingly, both groups entered the learning program with about the same level of motivation and the mean difference between the two groups was not significant \( p > .05 \). This might indicate that something happens to the nascent entrepreneur learners during the SBDC program that affects the two groups of learners differently. In the t-test for independent means tables, the Levene test for equality of means was assumed equal unless noted with an asterisk (*), in which case the equal variances’ not assumed values were reported.
Table 16

Motivation: Independent t-test

<table>
<thead>
<tr>
<th>Motivation at the start of program</th>
<th>N</th>
<th>( \bar{x} )</th>
<th>( p ) (1-tailed)</th>
<th>t value</th>
<th>Df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Successful</td>
<td>85</td>
<td>4.44</td>
<td>( p &gt; .05 )</td>
<td>.354</td>
<td>207</td>
</tr>
<tr>
<td>Not successful</td>
<td>124</td>
<td>4.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motivation at the end of program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>82</td>
<td>4.37</td>
<td>( p &lt; .05 )</td>
<td>*5.65</td>
<td>188</td>
</tr>
<tr>
<td>Not successful</td>
<td>108</td>
<td>3.56</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Equal variance not assumed Levene’s \( p < .05 \)

Now the intention is to review the t-test results and correlations according to how the variables loaded in the principal component model.

Social/Emotional Interaction. Table 17 showed that there were six variables comprising the component subjectively labeled social emotional interaction. Five of the variable questions asked participants about the emotional or affective state that they experienced during their participation in the SBDC learning program. Interestingly, this component explained the largest amount of variance in the model.

The fourth hypothesis was stated as: The learner success group mean values are significantly higher than the non-success group on each of the six latent variables comprising the social emotional dimension (\( p < .05 \)).

Table 17 indicates that those who learned from others in the program had a significant difference between the means of the two groups, perhaps suggesting the value of social interaction (\( p < .05 \)). The next question asked if the program helped to reduce a negative feeling (anxiety) and this variable had a significant difference between the means for the two groups (\( p < .05 \)). The third variable asked if the program helped them to feel more confident and this variable had a significant difference between the means of the two groups (\( p < .05 \)). The fourth variable asked participants if they were able to talk about their learning with others (family and friends), specifically, about what they were
learning in the SBDC program. Interestingly, this variable also had a significant
difference between the means of the two groups ($p < .05$).

Table 17

<table>
<thead>
<tr>
<th>Social/Emotional Interaction, Independent t-test</th>
<th>N</th>
<th>$\bar{x}$</th>
<th>$p$ (1-tailed)</th>
<th>t value</th>
<th>Df</th>
</tr>
</thead>
<tbody>
<tr>
<td>I learned from others who were in the SBDC program</td>
<td>Successful</td>
<td>69</td>
<td>4.01</td>
<td>.354</td>
<td>207</td>
</tr>
<tr>
<td></td>
<td>Not successful</td>
<td>111</td>
<td>3.11</td>
<td>$p &lt; .05$</td>
<td>*5.373</td>
</tr>
<tr>
<td>The program helped me reduce my anxiety about entrepreneurship</td>
<td>Successful</td>
<td>76</td>
<td>4.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not successful</td>
<td>117</td>
<td>3.52</td>
<td>$p &lt; .05$</td>
<td>*6.715</td>
</tr>
<tr>
<td>The program helped me feel more confident about starting a business</td>
<td>Successful</td>
<td>70</td>
<td>4.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not successful</td>
<td>114</td>
<td>3.64</td>
<td>$p &lt; .05$</td>
<td>*5.068</td>
</tr>
<tr>
<td>I was able to talk with people close to me about what I was learning</td>
<td>Successful</td>
<td>80</td>
<td>4.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not successful</td>
<td>108</td>
<td>3.40</td>
<td>$p &lt; .05$</td>
<td>*4.465</td>
</tr>
<tr>
<td>The program helped me reduce my frustration level with different business regulations</td>
<td>Successful</td>
<td>83</td>
<td>4.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not successful</td>
<td>113</td>
<td>3.29</td>
<td>$p &lt; .05$</td>
<td>5.058</td>
</tr>
<tr>
<td>I was highly motivated at the end of program</td>
<td>Successful</td>
<td>82</td>
<td>4.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not Successful</td>
<td>108</td>
<td>3.56</td>
<td>$p &lt; .05$</td>
<td>*5.656</td>
</tr>
</tbody>
</table>

* Equal variance not assumed Levene’s Sig. $p < .05$

Note: Underlined and bolded words in Tables 17 through 23 are coded to correlation descriptor words in Tables 24 and 25.

The fifth question asked participants if the program helped them reduce their frustration level with different business regulations. This variable did not have a significant difference between the means of the two groups. Finally, participants were asked if they were highly motivated at the end of the program. As might be expected, the difference between the means was significant ($p < .05$).

**Sherpa facilitation.** The next component focused on the instructor role in relation to the integration of other elements such as program and other learning resources.
The fifth hypothesis was stated as: *The learner success group mean values are significantly higher than the non-success group on the five latent variables comprising the Sherpa facilitation dimension (p < .05).*

Table 18 displays the results of the five variables comprising the component labeled Sherpa facilitation. These five variables all related to program elements that would be influenced by the instructor. Surprisingly, the latent variable concerning the student’s perception of the instructor’s experience was not significantly different. The next two variables related to instructor elements, with the second variable focused on instructor helpfulness and the third variable focused on the instructor’s willingness to allow the learner to set their own pace for learning. Both of the means between the two groups were significantly different (p < .05). Each of these latent variables had higher means for the successful group of learners than the non-successful, as was expected.

The final two questions in Table 18 relate to two variables: the program’s relevancy in terms of meeting learner goals and the program’s ability to help them link to other learning resources. Both of these variables had means between the two groups that were significantly different (p < .05). The Cronbach’s alpha value for the variables comprising the social emotional interaction dimension was .918, indicating that is within the expected range to confirm reliability (Field, 2005).

Consequently, the mean variable differences in Table 18 were all significant (p<.05) and those students who perceived themselves as successfully completing the program had higher mean values, which was the direction that was expected. The Cronbach’s alpha value of .904 for the variables comprising this dimension is within the range to confirm reliability (Field, 2005).
Table 18

Sherpa Facilitation Independent t-test

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>x</th>
<th>p (1-tailed)</th>
<th>t value</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>My mentor had relevant business experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>94</td>
<td>4.45</td>
<td>p &lt; .05</td>
<td>1.7</td>
<td>218</td>
</tr>
<tr>
<td>Not successful</td>
<td>126</td>
<td>4.22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My instructor provided me with helpful direction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>92</td>
<td>4.53</td>
<td>p &lt; .05</td>
<td>3.4</td>
<td>216</td>
</tr>
<tr>
<td>Not successful</td>
<td>126</td>
<td>4.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My instructor let me set my own pace for learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>85</td>
<td>4.34</td>
<td>p &lt; .05</td>
<td>3.2</td>
<td>194</td>
</tr>
<tr>
<td>Not successful</td>
<td>111</td>
<td>3.92</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SBDC learning program was relevant to my goals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>89</td>
<td>4.48</td>
<td>p &lt; .05</td>
<td>3.8</td>
<td>216</td>
</tr>
<tr>
<td>Not successful</td>
<td>123</td>
<td>3.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SBDC learning program helped me link to other learning resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>86</td>
<td>4.19</td>
<td>p &lt; .05</td>
<td>2.5</td>
<td>200</td>
</tr>
<tr>
<td>Not successful</td>
<td>120</td>
<td>3.82</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Self-management.** This is an important element of the comprehensive SDL model. The principal component analysis for this component loaded with three variables related to the learners’ attributes that would allow them to manage their own learning projects. Before the component analysis, the number of variables relating to self-management was assumed 11 variables. However, for ease of presentation the t-test values are grouped according to the component model. Some of these variables loaded on other components that might be viewed as part of the self-management dimension by some educators.

The sixth hypothesis was stated as: *The learner success group mean values are significantly higher than the non-success group mean values on the three latent variables comprising learner’s self-management dimension (p < .05).*
Table 19 shows the mean scores concerning the three variables comprising the self-management variables were all significantly higher for the successful group on each variable comprising the self-management dimension \((p < .05)\).

Table 19

<table>
<thead>
<tr>
<th>Self-management t-test</th>
<th>N</th>
<th>(\bar{x})</th>
<th>(p) (1-tailed)</th>
<th>t value</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was able to <strong>manage</strong> my time well</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>79</td>
<td>4.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not successful</td>
<td>118</td>
<td>3.99</td>
<td>(p &lt; .05)</td>
<td>2.742</td>
<td>195</td>
</tr>
<tr>
<td>I was <strong>self-disciplined</strong> with my SBDC learning program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>81</td>
<td>4.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not successful</td>
<td>110</td>
<td>3.83</td>
<td>(p &lt; .05)</td>
<td>4.365</td>
<td>189</td>
</tr>
<tr>
<td>I set strict <strong>time</strong> frames to complete my learning goals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>81</td>
<td>3.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not successful</td>
<td>112</td>
<td>3.41</td>
<td>(p &lt; .05)</td>
<td>3.215</td>
<td>191</td>
</tr>
</tbody>
</table>

The Cronbach’s alpha value of .820 on the variables comprising this dimension is within the value required to confirm reliability.

**Self-monitoring.** There were three variables comprising the measure self-monitoring component. Each of these variables related to the learner’s perceived ability to critically evaluate their own learning progress.

The seventh hypothesis was stated as: *The learner success group mean values are significantly higher than the non-success group mean values on the three latent variables comprising the self-monitoring dimension \((p < .05)\).*

Table 20 indicates that the mean values are significantly higher for the success group on each of the variables comprising the self-monitoring dimension \((p < .05)\). The Cronbach’s alpha value of .835 on the variables comprising this dimension is within the range required to confirm reliability.
Table 20

**Self-monitoring Independent t-test**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>( \bar{x} )</th>
<th>( p ) (1-tailed)</th>
<th>t value</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was able to assess my own progress</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>79</td>
<td>4.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not successful</td>
<td>115</td>
<td>3.60</td>
<td>( p &lt; .05 )</td>
<td>4.2</td>
<td>192</td>
</tr>
<tr>
<td>I was able to critically evaluate my business model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>81</td>
<td>4.21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not successful</td>
<td>111</td>
<td>3.53</td>
<td>( p &lt; .05 )</td>
<td>5.0</td>
<td>190</td>
</tr>
<tr>
<td>I enjoyed the challenge of the SBDC learning program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>82</td>
<td>4.39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not successful</td>
<td>114</td>
<td>3.73</td>
<td>( p &lt; .05 )</td>
<td>4.9</td>
<td>194</td>
</tr>
</tbody>
</table>

**Self-directed readiness.** This is an important construct in the SDL framework.

The three variables that comprise this component relate to the student’s perceived readiness to learn and to set their own learning goals.

The eighth hypothesis was stated as: *The learner success group mean values are significantly higher than the non-success group mean values on the three latent variables comprising the learner’s self-directed readiness dimension (\( p < .05 \)).*

Table 21

**Self-directed Readiness Independent t-test**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>( \bar{x} )</th>
<th>( p ) (1-tailed)</th>
<th>t value</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>I prefer to evaluate my own learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>71</td>
<td>3.75</td>
<td>( p &lt; .05 )</td>
<td>1.7</td>
<td>1.82</td>
</tr>
<tr>
<td>Not successful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I prefer to set my own entrepreneurial learning goals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>78</td>
<td>3.94</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not successful</td>
<td>114</td>
<td>3.73</td>
<td>( p &gt; .05 )</td>
<td>1.6</td>
<td>190</td>
</tr>
<tr>
<td>I prefer to make my own decisions about the learning program I participate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>79</td>
<td>4.22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not successful</td>
<td>117</td>
<td>3.94</td>
<td>( p &lt; .05 )</td>
<td>2.3</td>
<td>194</td>
</tr>
</tbody>
</table>

Table 21 indicates that two variables had significantly higher (\( p < .05 \)) mean values for each success group. The learner’s preference for setting his/her own learning
goals variable was not significant ($p > .05$). The Cronbach’s alpha value of .803 for this dimension is within the range required to confirm reliability.

**Contextual congruence.** Learning context is an important issue that is discussed by several SDL educators as being important to learning and it is comprised of three variables in this model that all relate to aspects of the SBDC program itself. This component is thought to convey that context is important only in so far as how congruent the context is with the individual learner’s expectations. Table 22 displays three variables that are considered to relate to contextual issues.

The ninth hypothesis was stated as: _The success group mean values are significantly higher than the non-success group mean values on each of the three latent variables comprising the contextual congruence dimension ($p < .05$)._ 

Table 22 shows that each of the three contextual congruent dimension variables had significantly higher ($p < .05$) mean values for the success groups of learners.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>$\bar{x}$</th>
<th>$p$ (1-tailed)</th>
<th>t value</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>I found it easy to understand the information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>89</td>
<td>4.46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not successful</td>
<td>128</td>
<td>4.09</td>
<td>$p &lt; .05$</td>
<td>3.072</td>
<td>219</td>
</tr>
<tr>
<td>I was free from other distractions during the program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>81</td>
<td>4.23</td>
<td>$p &lt; .05$</td>
<td>3.646</td>
<td>198</td>
</tr>
<tr>
<td>Not successful</td>
<td>119</td>
<td>3.65</td>
<td>$p &lt; .05$</td>
<td>3.646</td>
<td>198</td>
</tr>
<tr>
<td>I found the program easy to access</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>89</td>
<td>4.38</td>
<td>$p &lt; .05$</td>
<td>2.080</td>
<td>213</td>
</tr>
<tr>
<td>Not successful</td>
<td>126</td>
<td>4.09</td>
<td>$p &lt; .05$</td>
<td>2.080</td>
<td>213</td>
</tr>
</tbody>
</table>

The Cronbach’s alpha value of .797 on this dimension is within the range required to confirm reliability.
Expectancy. This construct is part of the comprehensive SDL model dimension called motivation. It is comprised of three variables in the nascent entrepreneurial SDL model.

The tenth hypothesis was stated as: The *success group mean values are significantly higher than the non-success group mean values on each of the three latent variables comprising the learner expectancy dimension* (*p* < .05).

Table 23 displays three variables that relate to the expectancy construct of the comprehensive SDL model. Two of these variables, each relating to the personal attributes of the learner, had means that were significantly higher for the success group (*p* < .05). Interestingly, the variable that defined the learner’s starting motivation did not have a significantly higher mean value with the success group to warrant rejection of the hypothesis. In fact, between the two groups, the means for this variable were nearly identical (*M*=4.44, *M*=4.40. This has interesting implications that are addressed in the next chapter. The Cronbach’s alpha value of .775 on this dimension is within the range required to confirm reliability.

Table 23

<table>
<thead>
<tr>
<th>Expectancy t-test</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td></td>
<td><strong>p</strong> (1-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I possess the <strong>knowledge</strong> to be successful with my learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>80</td>
<td>4.36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not successful</td>
<td>115</td>
<td>3.67</td>
<td><em>p</em> &lt; .05</td>
<td>5.630</td>
<td>193</td>
</tr>
<tr>
<td>I possess the <strong>experience</strong> to be successful with my learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>79</td>
<td>4.15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not successful</td>
<td>116</td>
<td>3.74</td>
<td><em>p</em> &lt; .05</td>
<td>3.068</td>
<td>193</td>
</tr>
<tr>
<td>Highly motivated at the start of program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Successful</td>
<td>85</td>
<td>4.44</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not successful</td>
<td>124</td>
<td>4.40</td>
<td><em>p</em> &gt; .05</td>
<td>.354</td>
<td>207</td>
</tr>
</tbody>
</table>
The next section reviews how latent variables correlated with each other, through grouping the variables around broad constructs associated with the SDL theory.

**Correlations**

This section displays the results of the latent variable correlations that measure an element of the self-monitoring component.

The 11th hypothesis was stated as: *The latent variables comprising the comprehensive SDL model self-monitoring and self-management dimensions will have significant correlations with other variables (p < .05).*

Before the study, variables were classified as potentially belonging to either the self-monitoring or the self-management comprehensive SDL dimensions. Table 24 displays those variables considered to have a strong correlation relationship and that are significant for the self-monitoring element. Correlation scores above .800 are considered to have a very strong relationship, scores between .600 and .799 are considered to have a strong relationship and scores above .400 to .599 are considered to have a moderate relationship (Salkind, 2004). Table 24 indicates that the variable pertaining to evaluating one’s own progress has a strong relationship \( r = .696 \) with the variable pertaining to the students’ ability to critically evaluate their business models. The variable pertaining to the students’ perceived ability to have the knowledge to be successful with their learning and the students’ ability to critically evaluate their business models has a strong relationship \( r = .692 \). Finally, the variable pertaining to the students’ perceptions that they have the experience to be successful has a strong relationship \( r = .785 \) with the variable concerning the students’ perceptions that they also perceive that they have the knowledge to be successful.
Table 25 displays the correlations of variables that measure aspects of the self-management component. Table 25 shows the results of how these 11 variables are correlated to each other. The first four variables – mentor, direct, pace and link – have a strong relationship. The variables self-discipline and manage have a strong relationship. Many of the other variables fall into the moderately strong relationship category (Salkind, 2005). A majority of the variables were significant at \( p < .05 \) (*) and some were significant at \( p < .01 \) (**).

Table 25

**Self-management Variables Pearson Correlations**

<table>
<thead>
<tr>
<th>Variable:</th>
<th>Mentor</th>
<th>Direct</th>
<th>Pace</th>
<th>Link</th>
<th>Learn</th>
<th>Manage</th>
<th>SD</th>
<th>Time</th>
<th>Goals</th>
<th>Dec.</th>
<th>Free</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mentor</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>.794**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pace</td>
<td>.630**</td>
<td>.792**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Link</td>
<td>.525**</td>
<td>.600**</td>
<td>.610**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learn</td>
<td>.365**</td>
<td>.475**</td>
<td>.453**</td>
<td>.462**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manage</td>
<td>.375**</td>
<td>.395**</td>
<td>.357**</td>
<td>.315**</td>
<td>.287**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>.366**</td>
<td>.388**</td>
<td>.350**</td>
<td>.312**</td>
<td>.326**</td>
<td>.772**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>.258**</td>
<td>.250**</td>
<td>.298**</td>
<td>.196**</td>
<td>.220**</td>
<td>.527*</td>
<td>.584**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goals</td>
<td>.091</td>
<td>.212**</td>
<td>.198**</td>
<td>.113</td>
<td>.124</td>
<td>.272**</td>
<td>.362**</td>
<td>.230**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec.</td>
<td>.176**</td>
<td>.403**</td>
<td>.349**</td>
<td>.273**</td>
<td>.229**</td>
<td>.322**</td>
<td>.321**</td>
<td>.186**</td>
<td>.511**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Free</td>
<td>.450**</td>
<td>.412**</td>
<td>.445**</td>
<td>.419**</td>
<td>.500**</td>
<td>.437**</td>
<td>.395**</td>
<td>.316**</td>
<td>.161*</td>
<td>.275**</td>
<td>1</td>
</tr>
</tbody>
</table>

** Significant at .01  * Significant at .05 (2-tailed)
Learner Characteristics. This next section addresses the third research question of this study that was interested in confirming if any student characteristics would help to identify students who were at risk in the program.

The 12th hypothesis was stated as: *There will be a significant difference in the frequency of occurrences in each of the learner demographic characteristic categories between the two groups of learners (p < .05).*

In this study, learner characteristics are comprised of both demographic variables and learner identified characteristics, such as stage of business and obstacles that students encountered during the learning program. Because the data that measured student demographic characteristics is nominal and ordinal in nature, it is appropriate to utilize a non-parametric statistical test such as the chi-square to determine if any of the characteristics are significantly different between those who successfully completed their learning and those who did not (Field, 2005). There are two critical assumptions underlying the chi-square tests. The first assumption is that observations must be independent of each other. Consequently, each subject must contribute to only one category. The second assumption is that each cell should have at least 5 or more responses. There assumptions were tested for each of the student characteristic variables tested. There were several violations in regards to the minimum count of at least five in each cell. In those cases, a procedure was used to minimize the effect in the chi square calculation.

Table 26 shows the key data counts for gender and how respondents perceived their success with their entrepreneurial learning program. There were no violations in regards to the assumption of only one respondent for each question.
The results of the chi-square for the gender variables are displayed in Table 26. Because \( p > .05 \) the hypothesis is rejected and gender is not a significant characteristic for this study.

Table 26

<table>
<thead>
<tr>
<th>Chi-Square Gender</th>
<th>Successful Completion:</th>
<th>Yes Actual</th>
<th>Yes Expected Frequency</th>
<th>No Actual</th>
<th>No Expected Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>39</td>
<td>42.8</td>
<td>68</td>
<td>64.2</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>55</td>
<td>49.6</td>
<td>69</td>
<td>74.4</td>
<td></td>
</tr>
</tbody>
</table>

\( \chi^2 = 2.72 \) (df=2, \( p > .05 \))

Another question asked participants to report their level of educational attainment.

Table 27 shows the key data counts for educational level attained by respondents as compared to how they perceived their success with their entrepreneurial learning program.

Table 27

<table>
<thead>
<tr>
<th>Chi-square Education</th>
<th>Successful Completion:</th>
<th>Yes Actual</th>
<th>Yes Expected Frequency</th>
<th>No Actual</th>
<th>No Expected Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School/GED</td>
<td>5</td>
<td>5.2</td>
<td>8</td>
<td>9.2</td>
<td></td>
</tr>
<tr>
<td>Some college/technical school</td>
<td>25</td>
<td>28.2</td>
<td>47</td>
<td>43.8</td>
<td></td>
</tr>
<tr>
<td>Completed 4 year college</td>
<td>31</td>
<td>28.6</td>
<td>42</td>
<td>44.4</td>
<td></td>
</tr>
<tr>
<td>Master degree</td>
<td>18</td>
<td>19.6</td>
<td>32</td>
<td>30.4</td>
<td></td>
</tr>
<tr>
<td>PH.D.</td>
<td>10</td>
<td>7.4</td>
<td>9</td>
<td>11.6</td>
<td></td>
</tr>
</tbody>
</table>

\( \chi^2 = 2.720 \) (df=5, \( p > .05 \)).

It cannot be concluded that the education variable has any significant difference in frequency between cells (\( p > .05 \)). Therefore, it cannot be concluded that education is a characteristic that has any significant effect on students’ likelihood of dropping out of
their entrepreneurial learning program. Table 28 shows the chi square results for household income.

Table 28

Chi-square Household Income

<table>
<thead>
<tr>
<th>Successful Completion:</th>
<th>Yes Actual Frequency</th>
<th>Yes Expected Frequency</th>
<th>No Actual Frequency</th>
<th>No Expected Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $49,999</td>
<td>15</td>
<td>20.5</td>
<td>37</td>
<td>31.5</td>
</tr>
<tr>
<td>$50,000- $74,999</td>
<td>28</td>
<td>25.6</td>
<td>37</td>
<td>39.4</td>
</tr>
<tr>
<td>$75,000- $99,999</td>
<td>14</td>
<td>12.6</td>
<td>18</td>
<td>19.4</td>
</tr>
<tr>
<td>$100,000- $149,999</td>
<td>16</td>
<td>13.0</td>
<td>17</td>
<td>20.0</td>
</tr>
<tr>
<td>$150,000- $199,999</td>
<td>5</td>
<td>5.9</td>
<td>10</td>
<td>9.1</td>
</tr>
<tr>
<td>Over $200,000</td>
<td>4</td>
<td>4.3</td>
<td>7</td>
<td>6.7</td>
</tr>
</tbody>
</table>

\[ x^2 = 4.461, \ (DF=5, \ p>.05) \]

The results of the chi-square show that \[ x^2 = 4.461, \ (p > .05, \ df-5) \]; because \( p > .05 \) it cannot be concluded that the variable household income has a proportional difference between the cell data that would help to identify a student at risk for dropping out of his/her entrepreneurial learning program.

The next background variable tested was pertaining to family status. Respondents were asked to identify if they were single, married with no children, married with children or single with children. Table 29 shows the chi-square analysis for family status.

Table 29

Chi-square Family Status

<table>
<thead>
<tr>
<th>Successful Completion:</th>
<th>Yes Actual Frequency</th>
<th>Yes Expected Frequency</th>
<th>No Actual Frequency</th>
<th>No Expected Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>15</td>
<td>14.1</td>
<td>21</td>
<td>21.9</td>
</tr>
<tr>
<td>Married no children</td>
<td>22</td>
<td>18.1</td>
<td>24</td>
<td>27.9</td>
</tr>
<tr>
<td>Married with children</td>
<td>42</td>
<td>46.3</td>
<td>76</td>
<td>71.7</td>
</tr>
<tr>
<td>Single with children</td>
<td>7</td>
<td>7.5</td>
<td>12</td>
<td>11.5</td>
</tr>
</tbody>
</table>

\[ x^2 = 2.215 \ (df=3, \ p>.05) \]
Participants were asked to identify their age within six broad categories. Table 30 shows that a violation of the chi-square assumptions occurred within the age 18-24, where only one person represented this age group. Table 30 shows the results of the chi-square for the age demographic variable. The chi-square for age value was $x^2 = 8.124$, ($p > .05$, df-5); because $p > .05$ it cannot be concluded that age is proportionately different between those who perceived themselves as successful and those who perceived themselves as not successful with their learning. Therefore, the variable age does not appear to be a characteristic that helps to predict if a student is at risk for dropping out of his/her entrepreneurial learning program.

Table 30

<table>
<thead>
<tr>
<th>Age</th>
<th>Successful Completion: Yes Actual Frequency</th>
<th>Yes Expected Frequency</th>
<th>No Actual Frequency</th>
<th>No Expected Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 – 24</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>25 – 34</td>
<td>10</td>
<td>7.7</td>
<td>10</td>
<td>12.3</td>
</tr>
<tr>
<td>35 – 44</td>
<td>14</td>
<td>15.8</td>
<td>27</td>
<td>25.2</td>
</tr>
<tr>
<td>45 – 54</td>
<td>22</td>
<td>29.2</td>
<td>54</td>
<td>46.8</td>
</tr>
<tr>
<td>55 – 64</td>
<td>24</td>
<td>20.8</td>
<td>30</td>
<td>33.3</td>
</tr>
<tr>
<td>65 and over</td>
<td>12</td>
<td>9.2</td>
<td>12</td>
<td>14.8</td>
</tr>
</tbody>
</table>

$x^2 = 8.124$ (df=5, $p > .05$)

Consequently, none of the selected characteristic variables from this study had frequencies that were significantly different, either in terms of the frequencies expected or the actual frequencies reported ($p < .05$). Thus, learner characteristics provided little insight into predicting successful or non-successful classification.

Finally, the last question on the survey asked the students to identify any recommendations that they had for the program from 4 previously defined categories that were defined during the qualitative phase of this study. Table 31 shows that slightly less
than 3% said make the class size smaller, 31.5% recommended separating those entrepreneurs who were already in business from the nascent entrepreneurs, 30.5% recommending holding more classes closer to my home, 27% recommended that the program provide more mentors and the remaining selected other as a response.

Table 31

<table>
<thead>
<tr>
<th>Student Recommendations</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make the class size smaller</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Separate those existing business owners from the nascent</td>
<td>32</td>
<td>76</td>
</tr>
<tr>
<td>Hold more classes close to my area</td>
<td>31</td>
<td>74</td>
</tr>
<tr>
<td>Provide access to more mentors</td>
<td>27</td>
<td>65</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>243</td>
</tr>
</tbody>
</table>

Summary

This chapter presented data to help answer the research questions for this study. A principal component analysis loaded with seven components makes up the nascent entrepreneurial SDL model. The majority of the 26 latent variables had significantly higher mean values for the success when t-tests were computed. The Cronbach’s alpha values for each of the seven dimensions were within the range required to confirm reliability of the scale and variables. Chi-square tests indicated that the learner demographic variables were not significant of success in the SBDC entrepreneurial learning program.
CHAPTER 6

DISCUSSION

This chapter discusses the qualitative and quantitative findings using the integrated approach in keeping with the sequential mixed method research requirements for this study, where both study phases are given equal weight for the discussion and conclusions. This sequential mixed methods research study involved subjects who were participating in a Small Business Development Center (SBDC) short-term adult educational setting that provided entrepreneurial education and mentoring to nascent and early-stage entrepreneurs. The purpose of the study was: 1) to determine the student, instructor and contextual factors that contribute to participation and attrition in the SBDC entrepreneurial learning program, and 2) to explore how the self-directed comprehensive learning model might help to enhance our understanding of nascent entrepreneurial learning in the SBDC learning program. The following four research questions guided this study: 1) What are the perceptions of adult learners who drop out of the SBDC entrepreneurial learning program, and how might understanding those perceptions help SBDC instructors better mitigate the negative factors and amplify the positive factors influencing learner participation and attrition?, 2) What factors might comprise a nascent entrepreneurial learning model and in what ways might those factors help to further our understanding of nascent entrepreneurial participation and attrition?, 3) How do learner characteristics help identify nascent entrepreneurs who are at risk for discontinuance in the SBDC learning program?, and 4) How might the comprehensive SDL model help enhance our understanding of nascent entrepreneurial discontinuance in the SBDC learning program?
This chapter is organized by first providing a brief introduction, then a discussion of the findings and finally the conclusions. The discussion of findings section includes four subsections. First, it includes an overview of the hypotheses that were supported. Second, the section includes a discussion concerning learners’ perception of success. This is followed by a discussion concerning the components of the nascent entrepreneurial SDL model, and a discussion concerning learner characteristics. Finally, the finding’s section contains a theoretical critique of the comprehensive SDL model.

The last major section in this chapter is the conclusion section and it has four subsections that discuss implications for practice, future research, strengths, and limitations.

Findings

The discussion section is a review of the hypotheses that were supported along with additional interpretations of the findings relative to nascent entrepreneurial learning. There were eight hypotheses formed to guide the analysis for this study. The primary hypothesis of this study focused on finding an emerging component learning model that would help to inform our understanding of nascent entrepreneurial learning, and this hypothesis was supported ($p < .05$). When referencing the emerging learning model from this study, it is referred to as the “nascent entrepreneur SDL model.” The nascent entrepreneur SDL learning model contained seven components, and each of these contained three or more variables. The seven components were analyzed to determine which of the component variables had significant differences between the means for the two groups of learners ($p < .05$). Each of the seven component hypotheses was at least partially supported because a majority of the variables contained higher mean averages for the success group ($p < .05$). Another hypothesis that was supported by the findings focused on determining significant correlations between variables comprising the self-
management and self-monitoring variables of the comprehensive SDL model, and the majority of these variables were determined to be significant ($p < .05$). The hypothesis that was not supported by the findings focused on determining the demographic characteristic variables that would be significant in defining the differences between the two groups of learners ($p > .05$).

Before engaging in an in-depth discussion about the meaning of the hypothesis results, the reader is first provided with a discussion concerning some of the descriptive data about the SBDC learners’ perceptions regarding their personal learning goal attainment and their expectations of the SBDC program. This is an essential discussion because this study is interested in understanding the learners’ experiences with the SBDC program and the learners’ perceptions of successful learning goal attainment, which served as the essential dependent grouping variable for this study. The final discussion section then discusses the principal component analysis that produced the nascent entrepreneurial SDL model including the seven components and the significance of each variable to learner attrition.

**Learner Perception of Success and Learner Expectations of Program**

This study was interested in how students perceived their success with completing their learning goals in the SBDC program. Because the SDL framework for this study confirms the value of the individual learner being responsible for assessing their own success in relation to their learning, it was deemed important to rely on the individual participant’s self-assessment of success in the entrepreneurial learning program. The majority of SBDC students perceived themselves as not successfully completing their learning goals, and their expectations of the program could be summed up with four major themes. To gauge students’ perceptions of success in the program, I asked
participants if they were able to complete all of their personal learning goals. This variable acted as the dependent variable that was used to measure SBDC learners’ perceived success with attaining their specific learning goals. Participants were also asked to identify their reasons for participating in the SBDC program and their greatest challenges that they faced during the program. These variables, along with qualitative data, help to portray what learners’ expectations were when they entered the SBDC program. When the qualitative data is integrated with this finding, it begins to tell a story concerning the learners’ experiences with the SBDC program.

This study confirmed that SBDC learners entered the program with clear learning goals and expectations of the program. However, many had a lack of awareness about the educational resources that were available to them in the SBDC program. As is the case with many adult learning programs, success is defined from multiple viewpoints. For example, SBDC adult education administrators often define success in the program as the completion of a set number of hours of training or the completion of a business plan draft. The instructional staff of the program may also have their own definition of what constitutes learner success. These include learner attendance, learner inquiry and learner participation in the workshops. Finally, the SBDC learners also define what success means to them; for some, it is making an informed decision about starting the business, getting answers to their specific questions for which they entered the program, or finding a mentor. To better understand learners’ perceptions of successful goal achievement and discontinuance in the SBDC learning program, it is helpful to review the findings concerning why they entered the SBDC program.

Participants were asked why they signed up for the entrepreneurial program and they were given seven structured responses with the option to select multiple responses if
they were applicable to the participant. Over 54% of the respondents indicated that they wanted to get answers to specific questions. Just 42% indicated that they wanted to confirm if they were doing things the right way. Other frequently mentioned responses included the 25% of respondents that indicated that they were hoping to network with other entrepreneurs, 21% indicating that they were just the type of person who likes to learn, and 20% indicating that they were hoping to find a mentor. Clearly, participants had learning goals and expectations when they entered the SBDC program.

The most frequently stated reasons that students gave for entering the SBDC program were because they had specific questions for which they were seeking answers or they were seeking confirmation that they were approaching their business planning correctly. Several student responses help provide insight about why students participated in the SBDC program. For example, Mike stated: “I wanted to be sure starting a business is the right thing for me to do.” His response indicates that he was looking for more information to help him validate if he should proceed with his business startup. However, Sonya stated: “I’m a singer, but I do not know anything about business, I am taking the classes to continue singing as a venture.” While Mike sought confirmation that his business idea was viable, Sonya expressed a desire to learn how to build a specific type of financial model for her entertainment business. Both of these participants had very different learning goals when they entered the program. Mike’s learning goals are best aligned with a one-to-one mentoring learning resource where in-depth discussions could occur concerning the financial aspects of his proposed business model. It would also be reasonable to assume that if he attended several workshops and determined that he was not getting answers to his specific questions, he would be inclined to discontinue his SBDC learning program. Sonya was seeking to learn how to turn her passion for singing
into something financially viable for herself. In this case, she was also seeking specific answers about how to build a business model for a specific type of entertainment business. The point is that general business planning workshops and classes may simply be too general for either Mike or Sonya to obtain answers to their specific questions. This might indicate that the SBDC program has a mismatch of program offerings for a majority of their students who are seeking answers to specific questions, because it requires students to attend potentially irrelevant workshops when they first enter the program. Students become eligible for individual mentoring after they complete several workshops and produce a draft of their business plan. Even when students completed several workshops, they were often not aware of the mentoring services that are available through the learning program.

The qualitative data also helps to clarify how SBDC learners’ lacked an understanding about what other learning resources were available to them. For example, even though Joyce had attended several SBDC workshops she described her confusion and ambiguity about how to access other SBDC learning resources. She stated: “But I didn’t hear about the free consulting services. Is that a free service as well? I didn’t know that I could reach out to the SBDC for consulting and mentoring help.” Likewise, Martin had attended multiple workshops and he voiced similar confusion about the SBDC learning resources. Martin stated: “Well the one thing that I didn’t quite understand at first was the amount of information that is available. I did not know the best place to get this business information. So, one of my challenges was a lack of awareness about where to go to get the help.” Similarly, after attending one class and one mentoring session, Claudia stated: “I was not aware that the SBDC provides one-on-one consulting to assist their clients. I attended just one class and I did not have the
opportunity to learn about all the services that the SBDC provides to the business community.” Similarly, Sonya stated: “I heard that there were individual sessions but I thought I had to be called from someone to participate in the individual sessions.” The SBDC learners’ seem to be confused about the ambiguity as to how to access all of the various learning resources, even after they had attended several workshops. With a better understanding concerning the lack of student awareness about SBDC learning resources, the discussion will now turn to several other reasons that students indicated as their reasons for participating in the program.

Over 14% of the SBDC students enrolled in the program because their business was struggling. If an entrepreneur sought help from the SBDC for a struggling business, then he or she would have specific questions that could best be answered through a one-to-one mentoring meeting. If this entrepreneur was required to attend a workshop before being eligible for one-to-one mentoring, the entrepreneur may likely discontinue the program because of the mismatch with the SBDC learning resource. Another question asked participants about their current business planning status and the responses provide some possible explanations for student attrition in the program. Over 34% indicated that if they had more time, they would have continued, and over 20% indicated that their entrepreneurial goals were on hold. Implied in these responses is that student discontinuance in the learning program may have been due to a lack of time, or students may have made a decision to delay the start of their business. Consequently, learner discontinuance might be a result of the entrepreneurs’ stage of business, business conditions and/or time constraints. A proportion of learner attrition appears to be due to factors that are under the control of the learner.
Regardless, most adult educators and SBDC educators would agree that it is problematic when a program leaves 60% of their students believing that they were not successful with their personal learning goals. This raises questions about what variables and/or factors might be critical to explaining nascent entrepreneurial participation and attrition. The next section discusses seven nascent entrepreneurial learning factors that surfaced from the analysis and discusses the individual variables that had significantly higher means with the success group.

**Nascent Entrepreneurial SDL Component Model**

The nascent entrepreneurial SDL model that emerged from this study is defined by the seven components that comprise the model. The components include: 1) social and emotional interaction, meaning the effect that positive social dialogue has on mitigating negative emotions associated with the learning task; 2) Sherpa facilitation, meaning the desire of nascent entrepreneurs’ to seek out relevant seasoned and experienced guides to help them navigate the risks associated with opening a business; 3) self-management, meaning learners’ capability to exercise time management skills and self-discipline relative to their learning; 4) self-monitoring, meaning learners’ ability to assess their learning progress and utilize critical thinking skills all while enjoying the challenge of learning; 5) self-directed readiness, meaning the students’ preference for selecting what learning they participate in and for evaluating their own learning progress; 6) contextual congruency, meaning the correct match between the learners’ goals and the program’s ability to help the student meet those goals with minimal distractions, and 7) expectancy, meaning the students have sufficient entering motivation and confidence as well as the knowledge and experience required to be successful with their learning.
The hypothesis for the nascent entrepreneur SDL model was supported by the principal component analysis. In addition, the model that emerged in this study was logical for nascent entrepreneurs. The social emotional interaction component is thought to have a catalyst effect that involves the learners’ accessibility and engagement in social dialogue with supportive others in a way that mitigates learners’ negative emotions. Sherpa facilitation defines the role of instructor/mentor in the SBDC program as being analogous to Sherpa hiking guides who use their knowledge of treacherous hiking trails to help other hikers avoid danger on the trail. Similarly, nascent entrepreneurial learners seem to be seeking a Sherpa guide to help them avoid the dangerous financial pitfalls involved with starting a business. Self-management reflects a learner’s desire and confidence to manage his or her learning goals. Self-monitoring reflects a learner’s skill to critically evaluate his/her own learning progress and to critically evaluate his/her proposed business model. Self-directed readiness reflects a learner’s preference to be responsible for his/her learning goals. Contextual congruency reflects the importance of the learning environment to be in alignment with nascent entrepreneur learner’s expectations. Expectancy refers to the learner’s belief that he or she has the cognitive ability to be successful with his or her learning goals as well as the experience required to accomplish those goals. The results of the principal component analysis produced surprising results.

The regression method was used to perform computations for the principal component analysis (PCA). When the PCA was computed the Promax rotation was set to include variables with an eigenvalues > .7. “Rather than trying to make a more determinant distinction between common and unique variance in variables, the component-analysis model avoids this distinction altogether and instead concentrates
upon analyzing the variables into a linearly independent set of component variables from which the original variables can be derived” (Mulaik, 2010, p. 217). The PCA confirmed which variables had linear relationships by identifying seven independent components comprising the nascent entrepreneurial SDL model. One of the core findings from this study was clear support for the hypothesis concerning the learning component model that explained 74% of the variance with significance ($p < .01$). Each of the components is discussed in the next seven subsections.

**Social emotional interaction.** The social emotional interaction component reflects the six variables comprising the component, including three variables that defined aspects of the learner’s affective state. The ability of learners to have meaningful social interaction with others during the learning program is proposed to have mitigated the negative affective variables (i.e., frustration, anxiety), which then increased the learners’ positive affect state (i.e., confidence). “Affect is a broad term that includes emotions and moods, such as happiness, sadness, fear, anger and more homeostatic drives such as hunger and thirst” (Hayton & Cholakova, 2011, p. 42). Affect is manifest through attitudes about self and goal preference and attitude has both an affective and cognitive component. Affect is thought to be more dominant to the learner when beliefs and feelings about an object are of opposite valence (Ajzen, 2001; Lavine et al., 1998).

This dimension contained two social interaction variables that asked learners to confirm that they were able to interact and communicate with family and peers about their learning. For example, one of the social variables asked students if the instructor provided them opportunities to learn from others in the program, and another variable asked them if they were able to talk with others who were close to them about what they were learning in the program. These two variables were loaded with four other variables
that asked participants to identify aspects of their affective state during the program. In addition to the two affective questions that asked students about their anxiety and frustration level, a third affective related question asked students if they felt more confident as a result of the program, and a fourth question asked respondents to indicate if their motivational affective state was high at the end of the program.

Two of the affective state related questions asked if the program helped the learner reduce their anxiety and frustration about starting a business. The success group mean averages for these two variables were each significantly higher on these variables ($p < .05$). Affect may be of particular value for nascent entrepreneurs in their learning process because they are making decisions involving financial risks and uncertainty with limited information or analysis (Hayton & Cholakova, 2011). This study confirms that nascent entrepreneurs’ affective state and their ability to engage in social dialogue with others may also be an important dimension to their learning.

The qualitative data also helps to increase our understanding of the value of social interaction and dialogue with others. For example, Mike stated: “It’s hard to find a business idea through just reading books. You have to talk to people who have done it.” Similarly, Claudia stated: “When I began my business, I always needed to ask others for help in translating the regulations governing the daycare business.” Help from others is also important as a way to sustain learners’ motivation. James stated: “Sometimes when I was discouraged, my family would tell me to continue on and persevere. The people who comforted me helped me, including my family and friends” Another participant referenced the family dynamic as an important reason for registering for the SBDC learning program. Martin stated: “I was attending to get information for my sister in-law. I was acting as a family mentor. We had an interest because we work in the business as a
family.” These quotes from students help to validate the importance of social dialogue with family and friends concerning students’ success in the SBDC learning program. The students’ social emotional interaction with significant others is conceived to act as a catalyst agent within the learners’ cognitive processing function that results in the reduction of negative emotions and an increase of positive affective states. “Research in the neurosciences and the field of intrinsic motivation indicates that emotions are critical to learning” (Wlodkowski, 2008, p. 21). Learners who are able to discuss their new knowledge gained from the SBDC program with significant others and peers may find that this helps to reinforce the value of their learning as well as to confirm that they have social support from significant others for their entrepreneurial career choice. This dimension intersects with the entrepreneurial research that has found the entrepreneurs with enhanced social networks (e.g., industry and business contacts) are able to identify more business opportunities than those working alone on a new venture (Hill, Lumpkin, & Singh, 1997). The value of collaboration with others is an important dimension in the SDL literature.

The SDL theory borrows from the collaborative and social constructivist perspective (Garrison, 1997). Garrison (1997) states that, “A collaborative perspective has the individual taking responsibility for constructing meaning while including the participation of others in confirming worthwhile knowledge” (p. 19). The difference in the nascent entrepreneurial model in contrast to the comprehensive SDL model is the idea that social dialogue may interact with learners’ emotions in a way that reduces negative emotions, while also increasing positive affective states, such as confidence. Each of the variables comprising the social and emotional interaction component had significantly higher means with the learner success group, providing support for the hypotheses.
relating to the variables comprising the social emotional interaction component \((p < .05)\).

One of the questions in this component asked students if their instructors encouraged the social dialogue with other learners. The fact that the instructor role had significance in the model is not surprising when one considers the financial risks that SBDC learners are contemplating before deciding to open a business. The role of instructors in the SBDC program is discussed in the next section.

**Sherpa facilitation.** Sherpa facilitation portrays the SBDC instructor and mentor role as a highly regarded business expert/mentor—someone who acts as a guide for other entrepreneurs to help them avoid devastating decisions in the early stages of opening a business. The term *Sherpa* originated to refer to a highly regarded, elite mountaineer and expert in the local terrain that acts as a guide to other mountaineers and hikers—an experienced and knowable Sherpa helps other hikers avoid dangerous areas on trails in high altitudes. This component contained five variables, including the respondents’ perceptions that their mentors had experience, were helpful, helped them link to other learning resources, let the students set their own pace for learning, and included the variable where learners indicated their agreement that the learning was relevant to their learning goals. The Sherpa facilitation component ranked second for explaining the variance (10.4%) in the nascent entrepreneurial SDL model and a majority of the hypotheses concerning individual variable t-test means being significantly higher for the success group was supported \((p < .05)\). Four of the variables comprising this component had mean averages that were significantly higher for the success group \((p < .05)\). Consequently, the majority of the variables that comprise this component may also be a good indicator if the learners will perceive themselves as successful in completing their learning goals.
The qualitative data also helps to enhance our understanding of the learning goal completion dimension. For example, one of the participants described what he was seeking from the SBDC instructor in his own words. Mike stated: “I was looking for a guide that could mentor me. I am afraid of making mistakes…. But if you can talk to someone who has done this before, like a guide, then you know that, ‘oh yes, I can do this’.” SBDC learners seem to be seeking an instructor to fill the role of a Sherpa guide—someone who can help them overcome their fear while also avoiding costly mistakes that can result from poor decision-making during the business start-up phase.

The SBDC learners seem to be asking for something more from their mentors and instructors than a collaborator when they seek out the SBDC learning program. This is a subtle but different role than the role that the comprehensive SDL model positions the instructor as fulfilling. The comprehensive SDL model positions the instructor in a collaborative role with the learner, not necessarily as an expert experienced guide who is strictly directing and advising the learner. It is also interesting to note that the Sherpa facilitator dimension was second in magnitude of importance in explaining the percent of variance in the nascent entrepreneurial SDL model.

The comprehensive SDL model positions the instructor as being an element of the self-management dimension. The comprehensive SDL model identifies the instructor role as a collaborative task control element within the self-management dimension. Thus, the self-management instructor dimension is concerned with the social and behavioral enactment of managing learning resources and learning goals in a collaborative manner with the students (Garrison, 1997). The emerging model for this study had the three instructor-specific variables combining with the program-specific variables in the same
component. This suggests that this dimension is a distinct component that defines the desired instructor role in the SBDC program.

The Sherpa facilitation component in this study’s emerging model suggests that learners come to the SBDC program expecting the instructors to be experienced in their field and to act as guides to help them avoid the potential financial risk that can be experienced when opening a business. Thus, the learners in the SBDC program appear to be willing to give more control of the learning goals and content over to the facilitators. The quantitative data indicated that 54% of the participants entered the program because they were seeking answers to specific questions, and 42% of the participants wanted to confirm that they were approaching things the right way. Over 20% of the learners’ in the program indicated that one of their priorities for starting the program was to find a mentor. The term mentor suggests a relationship where the student is seeking advice, guidance, and direction. Each of the participant’s top three reasons for attending the SBDC program implies that he or she was seeking an expert for advice. In addition to the important role of the facilitator in the SBDC program, the study also found that the student’s ability to self-manage his or her individual learning projects is an important aspect of student learning success, and this dimension is discussed in the next section.

**Self-management.** The three variables comprising this component in the nascent entrepreneurial SDL model explained 5.7% of the variance in the model, and they included the perception that the learner was able to manage time well, was self-disciplined, and was able to set strict time-frames. This third component in the model explained 5.7% of the variance, and all three variables were significant with higher means for the success group (p < .05). In the nascent entrepreneurial SDL model the self-management dimension involved learners’ abilities to self-manage their learning goals.
and outcomes. However, the comprehensive SDL model more broadly defined the self-management dimension as also shaping the contextual conditions to enhance goal-directed learning (Garrison, 1997).

Based on the findings from this study, *self-management* refers to the learners’ internal attributes such as time management skills and self-discipline. However, in the comprehensive SDL model “self-management is used to indicate an aspect of external task control specific to management of learning activities, which are intimately linked with goal setting and metacognitive strategies” (Garrison, 1997 p. 22). The variables comprising this component in the nascent entrepreneurial SDL model did show moderate to high correlations with some of the self-monitoring variables that formed the fourth self-monitoring component in the new model. Self-monitoring is discussed in the next section.

**Self-monitoring.** This component explained 3.7% of the variance in the model and the variables included the learners’ perception that they had the ability to assess their learning progress, had the skills to critically evaluate their business model, and were being challenged by the program. These variables require learners to either utilize critical thinking and/or to think critically about what they were learning in the SBDC entrepreneurial program as a means of self-monitoring their learning progress. The data also suggest that the SBDC nascent entrepreneurs perceived themselves as having the cognitive skills to be able to assess their progress in the learning program. In the comprehensive SDL model, self-monitoring refers to the “learner taking responsibility for the construction of personal meaning (i.e., integrating new learning and concepts with previous knowledge” (Garrison, 1997, p. 24). Self-monitoring involves the learner
assessing their learning progress, making observations and utilizing cognitive skills to form new knowledge by integrating new learning with prior knowledge (Garrison, 1997). The qualitative data from this study also helps to enhance our understanding of this dimension in the emerging nascent entrepreneurial SDL model because the learner is independent and responsible for his or her own actions. For example, Carolina discussed the need for entrepreneurs to be independent and dedicated as an entrepreneur. She stated: “If you’re independent enough and strong enough and have the dedication you will continue forward despite those who try to discourage you.” Similarly, Claudia discussed the importance of entrepreneurs being independent and responsible for their own goals. She stated: “A person who wishes to open a business is someone who values independence and wishes to achieve his or her goals.” Thus, SBDC learners seem to be cognitively aware of the need to be independent, as well as the value for them to be personally responsible. The ability of SBDC learners to think critically in order to evaluate their business model was summed up by Pete, who participated in the 8-week bilingual entrepreneurial program. He stated: “Some of the homework required a lot of thinking and analyzing rather than just looking it up online. It made me focus more and to think of the right questions.” This data implies that nascent entrepreneurs are motivated by the challenging aspects of the learning content that relates to helping them think critically about their business model. The data from the quantitative and qualitative data reaffirms that those nascent entrepreneurs who have greater desire to assess their own learning progress and who are able to critically evaluate their business model are also more apt to find the SBDC learning program challenging and enjoyable than those who score lower on these three variables. The students who were successful with their
learning goals were more likely to find the program challenging and enjoyable, and this may have helped to sustain their motivation throughout the program.

The self-monitoring dimension variables did correlate with other variables of the model. In addition, each of the variables had significantly higher mean averages with the success group \((p < .05)\). The variables making up the dimension in the nascent entrepreneurial SDL model appear to be slightly more focused on the learner’s ability to exercise critical reflection and the learner’s ability to personally assess his/her own learning than what was defined as encompassing this dimension in the comprehensive SDL model. The self-directed readiness component is also an important dimension in the SDL literature, and this dimension is discussed in the next section.

**Self-directed readiness.** The nascent entrepreneurial SDL model is comprised of three variables that define the self-directed readiness dimension. The variables included the learners’ preferences, to evaluate their own learning, set their own learning goals, and make their own decisions about the learning program in which they participate. This component explained 3.6% of the variance in the model. The preference for learners to evaluate their own learning variable and to make their own decisions about which learning programs in which to participate were significant, reflecting that the hypothesis was partially supported for these variables \((p < .05)\). The variable concerning the learners’ preference for setting their own learning goal mean difference for the success group was not significant \((p > .05)\), and the hypothesis was not supported for this variable. This potentially reinforces the notion that SBDC nascent entrepreneurial learners may be more willing to give up some control in setting their learning goals. The other implication is that while nascent entrepreneurial learners might prefer to have a mentor map out the
specific types of learning programs for them, the SBDC learners do still prefer to set their
own specific learning goals and prefer to be in charge of evaluating their own learning.

The qualitative data also helped to enhance our understanding of this dimension.
For example, Andrea discussed her self-directed learning readiness when she spoke about
her decision to discontinue the SBDC learning program. Andrea stated: “I dropped out of
the learning program before I got to the financial content in the class because I knew I
couldn’t get the funding.” Clearly, Andrea is indicating that she was evaluating her
progress in the entrepreneurial learning program based on how she assessed her ability to
obtain financing for her business. Implied in her statement is a conscious decision to
discontinue her learning program once she determined that she would not be able to get
the funding to finance her business. Taking a slightly different approach was Claudia,
who admits to not seeking a mentor to help her with her business. She stated, “The
reality is that I did not really look for an adviser or a professional to help me analyze how
to manage my business.” Sometimes learners, such as Pete, recognize that they need
education, and they take steps to seek out information and skill development concerning
entrepreneurship. Pete stated, “We started not knowing anything regarding business and
when I heard of the program on the radio, we decided that it was a good opportunity to
learn how to start a business. Basically I needed to learn everything, especially how to
keep track of my income and manage expenses.” Pete provides an example of a self-
directed learner because he was clearly making his own determination to seek additional
education, and he was determining what resources to utilize in pursuit of that education.
Contextual congruency was a distinct component in the nascent entrepreneurial model,
and it is discussed in the next section.
**Contextual congruency.** This component is defined by the following three variables that comprised the component including the learner’s perception: that they found the information in the SBDC learning program easy to understand, they were free from distractions, and they found the program was easy to access. The contextual congruency component explained three percent of the variance in the model. Each of the variables had significantly higher mean averages for the success group ($p < .05$). The variables that loaded to comprise the contextual congruency dimension included both contextual characteristics such as the students’ perceived ease of accessing the program and personal aspects of the learner such as their freedom from distractions and ease of understanding the program content. Therefore, this dimension appears to reflect more of a contextual congruency factor that encompasses the alignment of the program with the individual learner expectations and needs in contrast to encompass just contextual characteristics. It is not surprising that this dimension includes a contextual congruency factor because the participants for this study were all participating in the same program and they had unifying characteristics in terms of the purpose of their participation.

The qualitative data also helped to provide some context for defining this dimension. For example, James describes personal distractions that kept him from successfully completing the entrepreneurial class. He stated: “I lacked time. Sometimes I wanted to go to my entrepreneurial learning program classes but I could not because more customers would stop by or call and I had to take care of their request.” Martin also reflected on the personal time constraints that limited his access to the program. He stated: “Primarily, the majority of us who attend the classes are adults and sometimes the lack of time is the problem.” Similarly, Pete stated: “My job and work hours got in the way.” Carolina also discussed her distractions in completing the program. She stated:
“But as you can guess a lot of obstacles kept me from finishing the entrepreneurial learning program. It was many things.”

Some students’ also found some of the SBDC program delivery formats challenging. Andrea discussed her appreciation for the webinar as a learning delivery method but she also indicated that she felt overwhelmed with some of the program’s format. Andrea stated: “I liked the actual phone conference call webinar. The online learning was overwhelming.” Claudia also offered insight about another variable concerning the contextual congruency dimension. She stated: “The class should not have so many people in them. They should not have as many students. We were not able to get everyone’s questions answered.” Similarly, Carolina stated: “But I think there were so many in the class that he [instructor] didn’t have a lot of one-on-one time to spend with me.” In addition, Mike reflected on how some of the future topics were not congruent with what he needed. He stated: “Actually, I wanted to take other courses, but they were for other types of businesses. I wanted to continue but I didn’t feel it was totally for me.” As described through the individual statements of the participants in the SBDC program, contextual congruency is a multifaceted dimension when viewed from the individual learner’s perspective. Joyce also described how the instructor’s presentation lacked relevancy to her. She stated: “The very last class on funding didn’t really apply to me. I didn’t need money so it wasn’t that helpful.”

This dimension is similar to the comprehensive SDL model that had contextual characteristics as one of the elements of “anticipated control.” The comprehensive SDL model included anticipated control by the learner as an interacting element between contextual characteristics and personal characteristics. Garrison (1997) stated: “Anticipated control reflects the perceived ability and opportunity to exercise control
over the learning process” (p. 28). The contextual characteristic element formed with personal competency to make up what Garrison (1997) referred to as “expectancy.” Expectancy interacts with personal valence to form the dimension called entering motivation. Valence represents the combination of the personal need of the learner with his/her affective state. “In the learning context, valence reflects the attraction to particular learning goals” (Garrison, 1997, p. 27). In the nascent entrepreneurial SDL model, expectancy is the final dimension and it is discussed in the next section.

**Expectancy.** This component comprised three variables consisting of the following variables regarding learners’ perceptions: that they possessed the experience to be successful in the SBDC program, had the knowledge to be successful in the SBDC program, and their perceived entering motivation at the start of the SBDC program. This component explained 2.5% of the variance in the model. Interestingly, the first two variables concerning the learners’ perceptions about their experience and knowledge to be successful in the SBDC program resulted in significantly higher mean averages for the success group ($p < .05$). The learner’s perception that they were highly motivated at the start of the SBDC entrepreneurial learning program was not significant between the two groups ($p > .05$). Interestingly, the mean average for this variable was nearly identical ($M=4.44, M=4.40$) for the success group and non-success group. Thus, both learner groups entered the program with approximately the same level of motivation to be successful in accomplishing their learning goals. Because the mean average for the ending motivation variable was significantly higher for the success group it would appear that other internal and external contextual variables affect the learner’s motivation level while they are engaged in the learning program ($p < .05$). The data suggests that even if nascent entrepreneurs’ enter the learning program with the same level of motivation, over
time they may conclude that either they are not going to be successful with starting a business or they sense that the program is not addressing their learning goal. In addition, it appears that something beyond just the learners’ level of experience and knowledge affected their ending motivation. This discussion highlighted the significant variables for the success group and it discusses the component model that reduced the 26 variables down to seven more manageable dimensions for future discussion and research.

The next section discusses how various learner characteristics affected nascent entrepreneurial learning in relation to answering one of the four research questions of the study.

**Characteristics of the Learners**

For this study, learner characteristics were defined by the demographic variables that respondents were asked to answer (age, gender, education attainment, family status, income), as well as some of the learning variables that were already discussed in the nascent entrepreneurial SDL section. The data suggests that student learning characteristics might be more effective at determining if students will perceive themselves as successful with their learning goals—more so than the effectiveness of learner demographic characteristics. The supported hypotheses concerning learning characteristics included the learners’ perceived ending motivation, preference for evaluating their own learning, preference for making their own decisions about the learning they chose to participate, ease of understanding the information, freedom from distractions, and lastly, the perception that they possessed the knowledge and experience to be successful ($p < .05$). Most of these variables are perceptions that the learners reported about their own situation.
In addition, the program could make changes that help support the manifestation of these internal learner characteristics. It was not surprising to find that nascent entrepreneurs’ learning characteristics were more significant than demographic characteristics in this study about adult learners.

Demographic related variables were not as effective in discerning differences between the two groups of learners. For example, gender, education, household income, family status and age were not significant with respect discerning differences in expected frequencies between the two groups of learners ($p > .05$). The only variable that even came close to being significant was, age ($p < .15$).

The lack of any significant demographic variables might be attributed to several reasons. First the identified learner characteristics collected on the survey instrument were very limited. What was not included in the demographic variables were ethnicity, race, occupation, credit rating, financial net worth, technology proficiency, experience with other business startup activity or the degree of success with other types of adult learning programs. These types of characteristics might have proven to be more significant than the general demographic classification categories, but they did not come up during the qualitative phase of the study so they were not included in the survey. Furthermore, the lack of any demographic variables being significant might be due to the tendency of a self-directed learner to view his or herself most accountable for success or failure with his or her learning goals. Aside from age, which was significant at $p < .15$, the other variables were related to family demographic as opposed to personal characteristics.

Despite the lack of significance of any of the demographic related variables
the qualitative data reveals that family status (i.e. participants with childcare responsibilities) and business status (i.e. participants who were already in business) indicated that they had distractions that kept them from being able to attend the workshops. The SBDC program offers a multitude of learning delivery methods for participants to engage the learning program (i.e. online learning, webinars, live workshops, confidential mentoring). However, the study only asked participants for the delivery methods that they participated—it did not ask participants their preferences for learning delivery methods.

Learner characteristics are an important element in the comprehensive SDL model. The next theoretical discussion section provides a critique of the comprehensive SDL model to help address one of the studies primary research questions.

**Comprehensive SDL Model Critique**

One of the purposes of this study was to confirm if the comprehensive SDL model might be a useful learning model to help guide nascent entrepreneurial learning in the SBDC formal short-term learning context. The PCA discussion detailed how dimensions of the comprehensive SDL model does help to enhance our understanding of nascent entrepreneurial learning. For example, the comprehensive SDL model dimensions of self-monitoring, self-management and motivation were all found to be significant components in the emerging learning model for this study with nascent entrepreneurial learners (Garrison, 1997). In addition, there was evidence that variables related to these three core comprehensive SDL dimensions surfaced in the emerging model for this study. For example, variables concerning the role of the facilitator, contextual characteristics, and personal competency surfaced as critical variables in the emerging learning model—albeit with slightly different definitions than was proposed in the comprehensive SDL
model (Garrison, 1997). Despite these findings that confirm the value of the comprehensive SDL model with nascent entrepreneurs, there are gaps in the theoretical comprehensive SDL model that are not addressed for this group of learners.

The comprehensive SLD model overlooked the role that negative affective states or emotions had in motivating nascent entrepreneurs to participate in the program, and the model does not suggest an interactive element with social dialogue in mitigating negative stress-induced emotions. In addition, the comprehensive SDL model seems to underestimate the important role that learning from others (family and friends) has as an interacting agent with the learners’ emotional state in sustaining their motivation toward goal completion. The effect of learners’ emotional state was confirmed as being of value in explaining the differences between the two groups of learners through the t-test for independent means. In addition, the PCA for the emerging model for this study loaded with three emotional state variables, two social interaction variables, and one motivation variable to form the social emotional interaction component. However, the comprehensive SDL model positions learners’ affective states as being an interacting variable with learners’ personal needs. In the comprehensive SDL model, personal needs is defined as the value associated with specific learning goals (Garrison, 1997). However, this study suggests that the affective state of learners is positively influenced by the learners’ social interactions and dialogue with peers and family. But increased opportunities to dialogue with others does not necessarily increase learners’ motivation, because the findings suggest that as learners’ negative emotions are mitigated through confirming that they were doing things the right way, their practical need to continue with the program might also have decreased. This is especially true in the cases where participants were able to gain answers to the specific questions that they entered the
program seeking, or if they decided to put their business startup on hold because they concluded that they could not obtain the financing required to launch the business. Another important oversight in the comprehensive SDL model concerns the role of the instructor with nascent entrepreneurs.

The facilitator role in the comprehensive SDL model positions the instructor as more of an equal in the learning outcome. However, in this study the facilitator role was more aptly defined as a Sherpa guide, implying that the nascent entrepreneurial learner is looking for an experienced mentor to help them avoid the dangerous pitfalls of opening a business. Although the comprehensive model positions the instructor as a collaborator with the learner in establishing learning goals, the nascent entrepreneurs in this study seem to be seeking out more of an expert mentor from the SBDC, and not a generalist who is just a knowledge expert.

The comprehensive SDL model also overlooks personality characteristics that have been mentioned by education and entrepreneurial scholars as being significant factors in learning outcomes and entrepreneurial pursuits. In addition, the model does address the role that intuition might have on the generation of new entrepreneurial ideas that were mentioned by several of the participants in this study. Garrison does address learner characteristics in his model. However, he is referring to learner skills when he mentions learner characteristics and not psychological personality factors.

The contextual characteristic dimension in the comprehensive SDL model did have a moderate effect in the nascent entrepreneurial model. The variables that comprised this dimension were aligned with variables that indicate that this dimension might more appropriately be labeled as a relationship between the programs learning environment and the learner’s expectations of the program. The relationship in this
dimension was labeled contextual congruency in the nascent entrepreneurial SDL model in contrast to contextual characteristics that described this element in the comprehensive SDL model. Personal competency also surfaced as a critical dimension in this study through the two variables that indicated the learners’ perception that they had the knowledge and experience to be successful. Personal competency in the comprehensive SDL model more broadly defined as an element comprising anticipated control and expectancy that interacts with contextual characteristics (Garrison, 1997). Despite these gaps in the comprehensive SDL model the comprehensive self-directed learning model is aligned with the natural tendency of entrepreneurs desire to be independent and self-reliant individuals.

The comprehensive SDL model also neglects the issue of power and culture. Although Garrison (1997) addresses the issue of power in relation to the instructor, he does not address power in relation to the institutional context. Due to the funding for many entrepreneurial learning programs coming from government agencies, there is an increasing push from those funding agencies to define program success according to the amount of financing and jobs created by the participants in the program. This may result in institutional bias against small micro entrepreneurs because they are not as likely to help the federal agencies such as SBA meet their performance goals linked to capital formation and jobs created by the entrepreneurs that they serve. The other element that is not addressed in the comprehensive SDL model is the role that creativity might play in keeping entrepreneurial learners engaged. This element was only a subtle issue with several of the participants in the qualitative interviews for this study. Creativity is also an important element discussed in the entrepreneurship literature as being an important characteristic of entrepreneurs in relation to their motivation to pursue an entrepreneurial
career path. Despite these gaps, the comprehensive SDL model provides a useful guide for SBDC educators to utilize in developing and delivering nascent entrepreneurial education in formal settings.

Conclusions

The core dimensions of the nascent entrepreneur SDL model formed dimensions representative of self-management, self-monitoring and motivation in the emerging learning model for this study. In addition, new dimensions such as social and emotional interaction, sherpa facilitation, and contextual congruency formed distinct dimensions in the emerging model. However, leaner demographic variables were not helpful in defining which participants would complete the SBDC program successfully. However, several learner characteristics were significant in helping to define if learners’ were more likely to be successful with the SBDC learning program. These findings guide the implications for practice as well the final section concerning implications for future research discussion.

Implications for Practice

The implications for practice stem from the findings and discussion section of this chapter. This section contains recommendations such as improving learner assessment, adopting the comprehensive SDL model, and clarifying the role of sherpa facilitators. The first section addresses the need for better learner assessment and learner goal setting.

Learner assessment and learner goal setting. The data suggests that better assessment of learner goals when they enter the program combined with individual meetings with a sherpa mentor could improve learner success. The survey that emerged from this study could be utilized to help assess nascent entrepreneur learners. This information could be used to help students gain insight about how to improve upon SDL
dimensions where they might score lower than the average. For example, if a student scored low on social emotional interaction the student might be encouraged to seek out a significant other or family members who would be more inclined to be supportive of them taking steps to learn about entrepreneurship. The fact that slightly over 54% of the participants indicated that they entered the program “wanting answers to specific questions,” adds an element of complexity to defining student success and discontinuance in the SBDC program. Perhaps the SBDC participants might view their success as getting answers to their questions. Alternatively, success may be viewed as having obtained enough information to confirm that they are doing things the right way. In the context of the SBDC learning program, there is not a clearly defined starting and ending class or workshop that learners are required to take for a certificate of completion. Moreover, there are not clear learning goals established for each learner. Absent in this study is any programmatic definition of learning success; the individual learner is encouraged to participate in as much, or as few learning events as he/she so desire. However, this lack of a clear definition of learning goals may also contribute to the participant’s ambiguity of what successful completion of the program really entails.

This lack of clarity regarding what constitutes learner success in the program, may carry over to a more basic problem: the learners’ goals may not be properly assessed and then he/she may not be aligned with the correct program learning resource. In addition, when learners such as Mike seek to validate a business idea, it is possible that the learner will encounter information in the program that is counter to their long held belief that their business idea is viable. When learners sense that their expectations are not being fulfilled or that their long held belief that their business idea may not be viable, they may experience cognitive dissonance. Cognitive dissonance is defined as the
uncomfortable feeling one has when confronted with two conflicting ideas, beliefs, or emotional reactions and when it occurs it causes disequilibrium on the part of the individual (Festinger, 1958). A rationale nascent entrepreneur may seek dissonance reduction by attempting to eliminate a dissonant factor.

Based on the data, it is apparent that there is considerable ambiguity about what is expected of learners in the program, and even a lack of knowledge of some of the other SBDC learning resources even after learners have participated in several SBDC sponsored learning workshops. The program could consider taking a few minutes at the beginning of every workshop or at the beginning of a mentoring session to explain what is expected of them to have a successful learning outcome and to inform the learners about all of the SBDC resources that they can avail themselves. The program might also want to consider developing several scenarios of what success might look like for different types of nascent entrepreneurs. For example, this might include scenarios that address success being connected with a nascent entrepreneur making an informed decision not to start their business. Another scenario might include how success might be defined by the learner deciding not to start his/her business based on the analytical analysis on the business viability. This is similar to Andrea, who discontinued the program because she determined that her business was not going to be financially viable. Another scenario might include a learner who adjusts their business model to make it viable. A final scenario might include a learner who launches a business and then continues with the SBDC learning resources. These examples of success for different types of learners might give participants a better understanding that success can include multiple outcomes resulting from their participation in the SBDC learning program.
The program could also include time in one of the first learning encounters with its participants for them to develop their own goals and outcomes that they desire or expect from the SBDC program. This would serve as benchmark for the student and program to help identify when the student has met their defined learning goals. Currently, the goals that are discussed with the participants are focused on business outcomes as opposed to specific learning goals. This might also help to reinforce the need for the learner to utilize dimensions of the self-directed learning theory in order to enhance their chances of being successful in the program. Mike stated: “I wanted to be sure this is the right thing for me to do.” He was seeking reassurance and confirmation that he was not going to make a risky investment that could jeopardize his financial stability. Because learners are seeking answers to their specific questions, the program should consider capturing the questions that learners have at the beginning of the program, perhaps by asking them to write down their questions at the start of each workshop.

**Include mentoring for nascent learners.** The need for students to be linked with a seasoned mentor was noted in both the qualitative and quantitative phases of the study. Instructors and mentors in the SBDC program need to be mindful that their nascent entrepreneurial learners are seeking answers to specific questions that they have about opening a business. SBDC program administrators should ensure that learners have an opportunity to speak confidentially with every learner to address financial questions that might be embarrassing for learners to ask in a group setting. Since financial questions are often top of mind for many of the SBDC learners, the participants may be more at ease in addressing their specific questions privately with their mentor.

For those learners who were encouraged by an advisor to attend the program, the SBDC
mentor could help them define their individual goals and needs through linking them with a mentor before they start attending workshops.

**SBDC adoption of SDL model.** Because the SBDC program lacks a unifying learning framework, the comprehensive SDL model could serve the program well as a unifying learning theory. Without a unifying learning theory, individual instructors, mentors, and consultants are forced to develop their own philosophy based on their assumptions. These assumptions of learning are often not grounded in any adult learning theory. The three dimensions of the comprehensive SDL learning model including self-management, self-monitoring and motivation provide a simple way model for program leaders, instructors and mentors to develop a framework for thinking about their learners. In addition to the three main dimensions of the comprehensive SDL model, it is suggested that the social and emotional interaction dimension and the sherpa facilitation dimension be added to the comprehensive SDL model for the SBDC context. SBDC instructors should encourage their students to interact in meaningful ways with other students during the workshops, as well as discussing their learning with others that they are close to because this social interaction is a valuable mitigating variable to the students stress related emotions that they may be experiencing.

**Clarify the role of the facilitator.** The program should clarify the role of the instructor so that everyone understands that nascent entrepreneurs are seeking someone to guide him or her through the many obstacles that they encounter during the startup phase opening a business. The SBDC program should be mindful that nascent entrepreneurs are seeking mentors and instructors who can fulfill the role of a sherpa guide. This implies that the SBDC instructors need to balance the role of providing enough guidance to help the learner manage their learning resources successfully while also providing
flexibility to the students to set their own learning goals and then using their self-directed readiness, self-management and self-monitoring skill to maximize their learning outcomes.

The next section makes several suggestions for future research.

**Implications for Adult Education and Future Research**

This study contributes to the existing research that established the value of self-directed learning with entrepreneurs’ and business. This study adds to the existing research on adult learner participation and attrition in short-term formal education settings. This research helped to confirm that the comprehensive SDL model provides a viable lens for additional entrepreneurial learning. Given that the field of entrepreneurship lacks a unifying theory of learning this study could spur others to do further research with nascent entrepreneurs using the dimensions of the comprehensive SDL model. As the literature review highlighted, the adult education and entrepreneurship literature intersects with many of the learning dimensions that are related to the comprehensive SDL model and self-directed learning theory. Therefore, it would be helpful for additional studies in the field of entrepreneurship to include the comprehensive SDL model as the lens to research nascent entrepreneurial learning.

Second, it would be useful if a follow up survey were designed that addresses some of the learner characteristics that would help add to our understanding of nascent entrepreneurial learning. For example, issues of ethnicity, number of business ventures that the learner has been engaged previously and better data concerning the entrepreneurs learners social support network would be helpful to future studies. It would be helpful for future research to be conducted at other SBDC centers to determine if the emerging SDL model found in this study is evident with nascent entrepreneurial learners who be
located in different geographic areas. In addition, it would be helpful to determine if the emerging SDL model and the key learner variables that were identified in this study are also deemed significant at other SBDC centers where different learning methods and curriculum are applied. Because the PCA limited my ability to generalize these findings it is important for additional data from other SBDC center learners to be gathered and then future research might be able to use the more traditional factor analysis to confirm the dimensions of the emerging SDL entrepreneurial model.

It would also be helpful to determine if this study would get similar results if it were replicated in other programs that also serve the nascent entrepreneurial learner such as SCORE and WCA’s. Although this research involved nascent entrepreneurs, there could be value in utilizing this survey with other groups of learners to determine if similar results would be found. Finally, this research could lead to others utilizing the SBDC program as a place to recruit nascent entrepreneurs for future studies.

In summary this study confirmed an emerging SDL entrepreneurial model from students who participated in the Kutztown University SBDC program. Many of the learner variables in this study were confirmed as significant and could benefit from further analysis. Replicating this study in other SBDC’s SCORE and WCA’s would seem to be a logical next step to help confirm the significance of the new emerging SDL entrepreneurial model.
APPENDIX A  QUALITATIVE SURVEY

Ernie Post – IRB#28728

Client number:

Client: Type of Interview: Date: Time: Duration:

Questions for PASBDC Clients:

Thank you for volunteering to participate in this PASBDC mixed methods SBA portability research grant study. Before we proceed to the questions, I would like to read a consent document to you that will outline some information about this research and your rights as a participant as well as provide you with my contact information in case you have any questions or need to contact me about the study.

READ THE CONSENT FORM

Do you have any questions or concerns about the consent form that you would like answered before we get started? This interview will take about 45-60 minutes to complete and you may end it at any time or simply tell me if you have no response to a specific question.

Interview Guided Questions:

When you hear the word entrepreneur what comes to mind?

How would you describe yourself as an entrepreneur?

When did you first think about being an entrepreneur?

What was the occasion? Who was involved? What were your thoughts?

What did you need to learn in order to start a business?

How did you go about learning about this?

What led you to your participation in the PASBDC program?

What did you expect from the program? Did you get what you wanted?

Could you describe generally your experiences with the SBDC entrepreneurial learning program?

What sort of activities were most helpful, least helpful etc.

Tell me about your SBDC or SCORE mentor.
Were you able to communicate effectively with your mentor?

What message did they communicate to you?

Which part of the content of the PASBDC curriculum were you able to relate to the best?

Which content was the most challenging for you? (Which course are they describing?)

Tell me about your business planning progress? Tell me how developing the business plan helped you learn?

What sections of the business plan presented the most difficulty in writing?

What sections of the business plan development was most relevant to your situation?

Overall, tell me what aspect of the SBDC learning was most relevant to your situation?

What was least relevant?

What has prevented you from taking part in more of the educational program offerings of the SBDC?

For those who have left the program and have disengaged the program services, follow with the next question: What were some of the reasons you decided to stop taking workshops or going for mentoring? What factored into that decision?

Tell me how that decision and your decision about starting the business might have been related- if at all?

Can you think of 2 or 3 recommendations you would make for the SBDC program to make it more useful for future entrepreneurs like yourself?

Is there anything that I did not ask you today that you wish I had asked?

Remember to probe and to ask people to clarify the obvious- like Ed suggesting that if someone indicates that they were too busy to write the plan- ask what they mean by busy or to clarify what it was that kept them busy.

Field notes: General observations about the interview:
APPENDIX B INFORMED CONSENT

Informed Consent Form for Social Science Research
The Pennsylvania State University

Title of Project: PASBDC mixed methods SBA portability research grant study

Researcher: Ernie Post, Doctoral Adult Education Student
1735 Colony Drive
Wyomissing, PA 19610
Ecp2@psu.edu
Cell: 484-792-1028
Home: 610-927-2161
Office: 484-646-4002

Student Advisor: Dr. Elizabeth Tisdell, Associate Professor, Program Director
ADTED Program
Penn State Harrisburg
Middletown, PA 17057
e-mail: ejt11@psu.edu
Work: 717-948-6640
Cell: 717-579-8835
FAX: 717-948-6064

Purpose of the Study: The purpose of this research, which is being conducted for a course at Penn State, is to measure the effectiveness of PASBDC clients learning program.

Procedures to be followed: You will be asked to participate in a confidential audio taped interview that will last no longer than 60 minutes. The questions will pertain to your experience with your SBDC’s educational programming. Specifically, some questions will center on your experiences and perceptions over your participation with the online learning modules and other educational workshops or resources. Or, in some cases your perceptions of not participating with online learning modules or other educational resources from the center. After the interview you will be given a chance to review the transcribed notes from the interview and to edit anything that appears different from what you stated during the interview.

Benefits: The benefits to you include gaining a better insight into how to more effectively use the PASBDC learning resources for yourself. The benefits to society might include a better understanding by the PASBDC program how to more effectively use the online learning with other small business owners like yourself.

Duration/Time: The interview will not last longer than 60 minutes and you may elect to stop at any time.

Statement of Confidentiality: Your participation in this research is confidential. The data will be stored and secured at Kutztown University SBDC office in a locked file that is only accessible by the principal researcher. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared.
Pseudonyms will be recorded at the end of each interview. The interview data, including any recordings will be destroyed in May of 2012 at the final conclusion of the study. The data will be accessible to Ernie Post, Dr. Libby Tisdell, Student Advisor. The recordings will be stored in a locked file at the Kutztown University SBDC office.

**Right to Ask Questions:** Please contact the principal investigator Ernie Post, Penn State Doctoral Adult Education student, or the student advisor, Dr. Libby Tisdell, regarding complaints or concerns about this research.

**Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would receive otherwise.

You must be 18 years of age or older to consent to take part in this research study. Completion of this interview implies your consent to participate in this research and to be audio recorded. If you would like a copy of this consent form, please provide me with your contact information (either email or mail) so that I can send you a copy.
APPENDIX C SURVEY

SBDC Entrepreneurial Learning Program Evaluation

Informed Consent Form for Social Science Research The Pennsylvania State University
Title of Project: PASBDC mixed methods SBA portability research grant study

Researcher:
Ernie Post, Doctoral Adult Education Student
1708 Colony Drive
Wyomissing, PA 19610
Esp2@psu.edu
Cell: 484-792-1023

Student Advisor: Dr. Elizabeth Tisdell, Associate Professor, Program Director ACTED Program
Penn State Harrisburg
Middletown, PA 17057
e-mail: ejt11@psu.edu
Work: 717-948-8040
Cell: 717-477-6535

1. Purpose of the Study: The purpose of this research, which is being conducted for a course at Penn State, is to measure the effectiveness of PASBDC clients learning program.

2. Procedures to be followed: You will be asked to participate in a confidential online survey. The questions will pertain to your experience with your SBDC’s educational programming. Specifically, some questions will center on your experiences and perceptions over your participation with the online learning modules and other educational resources.

3. Benefits: The benefits to you include gaining a better insight into how to more effectively use the PASBDC learning resources for yourself.

4. Duration/Time: The survey will not last longer than 10 minutes and you may elect to stop at any time.

5. Statement of Confidentiality: Your participation in this research is confidential. The data will be stored and secured at Kutztown University SBDC office in a locked file that is only accessible by the principal researcher. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared. The data will be accessible to Ernie Post, Dr. Libby Tisdell, Student Advisor. The survey data will be stored in a locked file at the Kutztown University SBDC office and then destroyed by May 2013.

6. Right to Ask Questions: Please contact the principal investigator Ernie Post, Penn State Doctoral Adult Education student, or the student advisor, Dr. Libby Tisdell, regarding complaints or concerns about this research.

7. Voluntary Participation: Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits.

You must be 18 years of age or older to participate in this research study. Completion of this survey implies your consent to participate.
SBDC Entrepreneurial Learning Program Evaluation

1. I initially signed up for the SBDC learning because... (Check all that apply)
   □ I wanted to get answers to specific questions
   □ I wanted to confirm if I was doing things the right way
   □ I am just the type of person who likes to learn
   □ I was hoping to find a mentor
   □ I was struggling with my business
   □ I was told by an advisor that I should attend
   □ I was hoping to network with other entrepreneurs
   □ Other, please specify

2. In relation to my SBDC entrepreneurial learning program I was able to complete? (Check only one)
   □ None of my learning goals
   □ Some of my learning goals
   □ A majority of my learning goals
   □ All of my learning goals

3. I participated in the following SBDC learning programs ... (Check all that apply)
   □ Live workshops
   □ Online Learning
   □ One-to-one consulting/mentoring
   □ Pitch-Then-Plan Webinar
   □ Other, please specify
SBDC Entrepreneurial Learning Program Evaluation

4. I was able to complete the following SBDC learning modules ... (Check all that apply)
   - First Step (Starting and Growing a Business)
   - Business Planning Series
   - The Pitch-Then-Plan Webinar
   - Marketing
   - Government Marketing (MBE/WBE Certification)
   - Financing/Budgeting
   - Other, please specify

*5. I was able to complete all of my entrepreneurial personal learning goals.
   - No
   - Yes
### SBDC Entrepreneurial Learning Program Evaluation

6. In relation to your SBDC entrepreneurial learning program please check your level of agreement for each statement...

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>My SBDC instructor/mentor had relevant business experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My instructor/mentor provided me with helpful direction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My instructor/mentor let me set my own pace for learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SBDC learning program helped me link to other learning resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The program helped me feel more confident about starting a business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The program helped me reduce my anxiety about entrepreneurship</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The program helped me reduce my frustration level with different business regulations/processes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I learned from others who were in the SBDC program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was free from other distractions during the program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I found it easy to understand the information that I was presented</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SBDC program was easy to access</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The program was relevant to my goals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### SBDC Entrepreneurial Learning Program Evaluation

**7. In relation to my SBDC entrepreneurial learning program...**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was highly motivated when I entered the program</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I was able to manage my time well</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I was self-disciplined with my SBDC learning program</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I set a strict time frame to complete my learning goals</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I was able to assess my own progress</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I was able to critically evaluate my business model</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I enjoyed the challenge of my SBDC learning program</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I possess the knowledge to be successful with my entrepreneurial learning goals</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I possess the experience to be successful with my entrepreneurial learning goals</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I prefer to set my own entrepreneurial learning goals</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I prefer to evaluate my own entrepreneurial learning performance</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I prefer to make my own decisions about which learning programs to participate</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I was highly motivated toward the end of my SBDC program</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I was able to talk with people close to me about what I was learning</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
SBDC Entrepreneurial Learning Program Evaluation

8. Please identify the greatest challenges that you encountered when completing your SBDC entrepreneurial learning program. (Check all that apply)
   - Balancing work and my time for my entrepreneurial learning
   - Managing priorities between my family needs and my entrepreneurial learning goals
   - Maintaining my motivation to continue when hitting roadblocks to my entrepreneurial goals
   - Securing support from family and friends to continue starting my business
   - Securing financing to launch the business
   - Other, please specify

9. Please check the one statement that is most relevant to your SBDC learning situation.
   - I received the information from the SBDC learning program that I was seeking.
   - I have put my entrepreneurial learning goals on hold for now.
   - If I had more time I would continue my SBDC entrepreneurial learning program.

10. Please check the statement that best reflects your current business status.
    - I decided that starting a business is just not for me.
    - I started the business and it is my only source of income.
    - I started the business and I am seeking more help to grow the business.
    - I started the business but it is struggling and I need some help.

11. Your gender is?
    - Female
    - Male

12. Your highest level of education achieved is?

13. Your household income is?

14. Your family status is?

15. Age
SBDC Entrepreneurial Learning Program Evaluation

16. Please check any recommendations you have for the SBDC learning program.

☐ Make the class size smaller.
☐ Separate those who are already in business from those who are just starting a business.
☐ Hold more learning programs close to my area.
☐ Provide access to more mentors.
☐ Other, please specify
Recruitment email from those students who already completed or withdrew from the PASBDC learning program.

Hello, SBDC student,

Base on your early withdraw from the PASBDC learning program you may have important insight that could help the program improve its educational programming for future students who might enroll. If you would be willing to participate in a confidential interview lasting no longer than 60 minutes, please respond to this email about your interest and availability.

A Penn State University doctoral student is conducting this research study in order to meet partial fulfillment for a doctoral degree in education.

Thank you for consideration of this request.

Ernie Post
Director
Kutztown SBDC
484-792-1028
REFERENCES


Webster & Kruglanski, 1994


Ernie Post graduated from Allegheny College, Meadville, PA with a dual major in both business economic and psychology. While attending Allegheny College he worked full time as a counselor for Geisinger Health in a residential treatment center for troubled youth. There he was promoted to supervisor of a psychiatric diagnostic treatment center and later he was named supervisor of a long-term residential treatment unit.

After graduation, Ernie worked as a business consultant for the Jamestown Community College Small Business Development Center in Jamestown, New York while he also completed his MBA degree from Penn State, Behrend. Three years later Ernie accepted a position as Assistant Director of the SBDC at Gannon University, in Erie PA. Within a year, Ernie was promoted to Director of the Gannon SBDC where he led that program for 8 years. During his time at Gannon University Ernie also served as Director of the Computer Integrated Manufacturing Center for the first two years of startup. He grew the revenues to $1.5 million and reached profitability within two years after negotiating contracts with GE Locomotive Division to be their primary CAD/CAM software educational partner for over 3,000 engineers working at the Erie, PA plant.

In 1998, Ernie accepted the Kutztown University SBDC Director position. Since accepting this position at Kutztown University in 1998, he has led the center to be recognized in 2007 and 2008 by the Small Business Administration as an SBDC center of excellence for innovation and excellence. In 2007, Ernie helped launch the Latino Business Resource Center (LBRC) after securing new seed money for the program from Dr. Javier Cevallos, President of Kutztown University. Ernie also secured additional funding from National Penn Bank, a long-term sponsor of the Latino Business Resource Center. In 2007, the KU SBDC was recognized by the U.S. Hispanic Chamber of Commerce Presidents Award for its leadership in outreach to the Latino business community. Today the KU SBDC serves a national best practice for the Small Business Development Center national network. In 2008, the KU SBDC was recognized by the SBA as one of the top centers in the country. Most recently, the KU SBDC has been recognized for its leadership with its cooperative effort with the Berks County Community Foundation to launch a bricks and mortar incubator for new business startups in Reading.

Following his life long-long passion for learning and research, Ernie started his doctoral program in education at Penn State University, Harrisburg in 2007. The lack of research with first generation Latino entrepreneurs was a major reason that Ernie pursued his dissertation that utilized a mixed method study to explore why early stage entrepreneurs drop out of their educational programs and he plans to defend his dissertation in April.

In addition to being elected President of the Pennsylvania SBDC Association representing all 18 SBDC centers across the Commonwealth, Ernie has served as an ESL volunteer with the Berks County Literacy Council as part of his local church service with outreach in Reading. He remains active on numerous civic and political organizations. Ernie is active in the Reading Aero Club where he enjoys taking his risk-taking friends along for rides to practice his piloting skills on cross-country trips.