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What Makes Students Entrepreneurial: A Case Study of Students' Entrepreneurial Intention Using Three Antecedents of Intention

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What Makes Students Entrepreneurial: A Case Study of Students' Entrepreneurial
Intention Using Three Antecedents of Intention

A Dissertation submitted in partial satisfaction
of the requirements for the degree of

Doctor of Philosophy

in

Education

by

Irene Min Song

March 2023

Dissertation Committee:
      Dr. Raquel M. Rall, Chairperson
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The Dissertation of Irene Min Song is approved:

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Committee Chairperson

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And to whom we trust – make me an instrument of your peace.

ABSTRACT OF THE DISSERTATION

What Makes Students Entrepreneurial: A Case Study of Entrepreneurship Education on
Students' Entrepreneurial Intention using Three Antecedents of Intention

by

Irene Min Song

Doctor of Philosophy, Graduate Program in Education
University of California, Riverside, March 2023
Dr. Raquel M. Rall, Chairperson

The proliferation of entrepreneurship education in higher education institutions has been

fueled by the pressure to promote the economy and educate a new workforce with agility

to be both employee and employer (Fayolle & Gailly, 2015; Navi et al., 2017). With the

surge of entrepreneurship education, studies regarding the effectiveness of these courses

in promoting students' entrepreneurial intention to start their own businesses have grown

in the last few decades. However, current literature lacks students' narratives describing

their perspectives on entrepreneurship education. Students' lived experiences represent a

vital source of insights into factors that influence their entrepreneurial intention that has ramifications for economic growth.

Using the Theory of Planned Behavior (TPB) and its three intention antecedents: attitudes, subjective norms, and perceived behavioral control and pattern-matching analysis, this study explores factors that influence entrepreneurial of intention. This investigation includes 31 pre-and post-course semi-structured interviews with 15 students who took entrepreneurship education courses at the undergraduate and graduate level. The findings indicate that knowledge, social observation, and class experience influence students' entrepreneurial intention. The present study provides an innovative approach and expands the field of entrepreneurship education by utilizing qualitative study methodologies. These findings also address the gap in the literature that primarily focuses on the outcome of entrepreneurship education on students' entrepreneurial intentions.

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Glossary

Term	Definition
Attitudes	Individual's desirability and evaluation toward a certain behavior and likeliness of pursuing a behavior (Ajzen, 1991)
Entrepreneurship	A process of developing attitude and aspiration to accept challenges to create a new value and innovative venture such as a starting a new business under uncertainty (Hebert & Link, 1989; Kuratko & Hodgetts, 2001; Kao, 2010)
Entrepreneurship Education	Educational program that promotes entrepreneurial intentions through the knowledge and skillsets required to start a business (Henley et al., 2017; Thompson, 2009)
Entrepreneurial Intention	Self-acknowledged belief by a person that they intend to pursue a new business venture and consciously plan to do so at some point in the future (Henley et al., 2017; Thompson, 2009)
Perceived Behavioral Control	Person's perception of the ease or difficulty of performing the behavior of interest and self-confidence to act accordingly (Ajzen, 1991)
Social Norms	Individual's perception of social pressures to perform or not to perform the behavior based on their social surroundings (Ajzen, 1991)
Theory of Planned Behavior	Theory that links belief (intention) to behavior through core antecedents which include attitude, subjective norms, and perceived behavioral control (Ajzen, 1991)

CHAPTER 1

INTRODUCTION

Background Knowledge

Institutions of higher education are expected to educate a new workforce with skillsets that allow them to be agile workers moving between an employee and a self-employed (Fayolle & Gailly, 2015; Kurata, 2005; Mars & Metcalf; 2009; Rauch & Hulsink, 2015). Educating students on entrepreneurship has become increasingly important because "researchers anticipate a future business landscape dominated by small companies and opportunities for self-employment" (Smith, 2003, p. 23). Smith (2003) implies that entrepreneurship contributes to the change in the future landscape of the labor market that demands entrepreneurs who are self-employers. To meet these demands, universities started providing entrepreneurship education to promote entrepreneurial interests and intentions among students (Nabi et al., 2017).

The surge of entrepreneurship education in postsecondary institutions over the past few decades arose in response to a policy agenda focused on stimulating economic development, global market competition, and job creation (Bae et al., 2011; Brooks et al., 2007; Fayolle & Gailly, 2015; Zhang et al., 2014). These external factors have pressured higher education to incorporate entrepreneurship education to promote students to pursue entrepreneurship (Kats, 2003; Kurata, 2005; Pittaway & Cope, 2007; Vanevenhoven & Liguori, 2013). Entrepreneurship education, which refers to education aimed to enhance entrepreneurial knowledge and skills and encourages students to pursue entrepreneurship

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(Mayhew et al., 2016), was first offered at the Harvard Business School in 1947. Since then, the number of entrepreneurship education courses offered in U.S. universities has quadrupled (Duval-Council, 2013; Katz, 2003; Kurata, 2005; Nati et al., 2017).

The importance of entrepreneurship is highlighted in statistical data and scholarly literature that indicate a demand for entrepreneurs and their contributions to the economy and the labor market (Kurata, 2005; Fayolle et al., 2006). Statistical data, such as data from the U.S. Census Bureau (2010, 2016), International Trade Administration (2015), and U.S. Small Business Administration (SBA) (2018), indicate there are approximately 30.2 million small businesses ran by entrepreneurs in the United States. In addition, the U.S. Census Bureau's Annual Survey of Entrepreneurs (2016) indicates there were 5.6 million firms in the United States that consisted of small business owners. These small business owners who are entrepreneurs employ 47.5% of U.S. employees, generate 1.9 million new jobs annually, and contribute 32.9% of $1.3 trillion in U.S. exported goods (SBA, 2018). Furthermore, according to research conducted by a MAVY Poll on behalf of the American Institute of Certified Public Accountants (AICPA), seven out of ten college graduates intend to become entrepreneurs and initiate start-ups at some point in their career (AICPA, 2019). In 2015, the nation's 414,000 start-up firms created 2.5 million new jobs (Census Bureau Business Dynamics Statistics, 2015). These data indicate the importance of entrepreneurship in promoting the economy and why entrepreneurship education is vital in generating entrepreneurs who can contribute to the economy.

Despite the importance of entrepreneurship and entrepreneurship education, there is a missing link between the current literature that emphasizes how students perceive entrepreneurship education and how it impacts students' interest in pursuing entrepreneurship. Some of the missing topics such as the effectiveness of entrepreneurship education, factors that influence students' decisions to pursue entrepreneurship, and understanding of student's perception of the experiences while taking entrepreneurship education courses are often nonconclusive and neglected in the literature (Ginanjar, 2016; Henry & Lewis, 2018). Therefore, this study investigates how students perceive entrepreneurship education and the degree to which it shapes their entrepreneurial intentions.

The surge of entrepreneurship education over the past few decades has attracted attention. Particularly, scholars grew interested in understanding how education could enhance entrepreneurial intention (Fayolle & Gailly, 2015; Putra et al., 2021). Entrepreneurial intention refers to an individual's aspiration to pursue entrepreneurship and is a primary antecedent to promoting entrepreneurial behaviors (Liñan et al., 2011). Studies suggest that entrepreneurship education contributes to the development of entrepreneurial intention and therefore fosters entrepreneurial behaviors such as starting a business (Gupta et al., 2009; Fayolle et al., 2006; Liñan et al., 2011; Sanchez, 2013; Nabi et al., 2017; Saleh & Idris, 2019). Using entrepreneurial intention as a proxy or a determinant to predict future entrepreneurial behavior, scholars expanded he research on the impact of entrepreneurship education.

Studies that have measured the number of start-ups led by students often needed more findings that required longitudinal studies with extended periods for students to establish their start-up business (Shen et al., 2010). However, there are challenges involved with longitudinal studies because it takes an average of ten years for a student to pursue entrepreneurship (Shen et al., 2010). Using entrepreneurial intention as a proxy, scholars focused on the likeliness of students exhibiting entrepreneurial behaviors. Entrepreneurial intention as a proxy allowed scholars to focus beyond an immediate number of start-ups by graduates to measure the impact of entrepreneurship education on students' entrepreneurial intention (Ferreira et al., 2017; Walter & Block, 2016). By changing the perspective from an immediate number of start-ups by students to students' intentions to pursue entrepreneurship, the research emphasizes how entrepreneurship education influences entrepreneurial intention (Ferreira et al., 2017; Liñan & Fayolle, 2015).

Current literature on entrepreneurship education on entrepreneurial intention lack student inclusion and narratives on their experience describing what is going on with students. For instance, how students perceive course content, what triggers any changes in students' attitudes toward entrepreneurship, and which factors in entrepreneurship education influence the development of students' intention toward entrepreneurship are missing in the literature rooted from students' experience. In the present case study, I investigate how students perceive entrepreneurship education and factors that promoted any changes in their intention to pursue entrepreneurship using the Theory of Planned Behavior (Ajzen, 1991).

In what follows, I present the purpose and significance of the study, followed by a review of entrepreneurship education and its influence on entrepreneurial intention. Within this section, I define key terms used in this study, such as entrepreneurship, entrepreneurial education, and entrepreneurial intention. Then, I discuss a theoretical framework, the Theory of Planned Behavior (TPB) (Ajzen, 1991), and its usefulness in elaborating on entrepreneurship education and the factors influencing intention in this study. Next, I discuss the methodology, and I conclude by discussing the study's implications, limitations, and recommendations.

Purpose and Significance of the Study

The present study's findings help fill a current gap in the literature by exploring how students perceive entrepreneurship and develop entrepreneurial intentions as they experiencee an entrepreneurship education course. Using the TPB (Ajzen, 1991) as a guiding theoretical framework, I investigate what factors influence changes in students' entrepreneurial intentions based on the antecedents of intention – attitudes, subjective norms, and perceived behaviors.

This study's findings contribute to the growth of the literature on entrepreneurship education and are important for theory, research, and practice in key ways. First, the TPB is employed in this qualitative study to examine entrepreneurship education's influence on entrepreneurial intention to expand the theory's application which has been typically limited to quantitative studies. Ajzen's TPB in relation to intention and its antecedents – attitude, subjective norms, and perceived behavior- is often used in the domain of

entrepreneurship education with a quantitative approach to analyze statistical implications between entrepreneurship education and entrepreneurial intention (Guerrero et al., 2007; Gupta et al., 2009; Fayolle et al., 2006; Sanchez, 2013; Zhang et al., 2014). However, I used TPB with a qualitative approach to add a narrative description to what quantitative studies have and have not indicated – the impact of entrepreneurship education on entrepreneurial intention based on TPB's three antecedents of intention inclusive of students' narratives.

Second, adding a narrative description of factors influencing three antecedents of intention can provide insights into the overall influence of entrepreneurship education on students' entrepreneurial intention. The narrative descriptions also help to explore how students interpret entrepreneurship education driven by their lived experiences (Nabi et al., 2013). By adding narratives of students' lived-experience from entrepreneurship education courses, this study adds value to the current literature that lacks inclusiveness of students' experiences and perceptions of entrepreneurship education. In addition, it can shed light on entrepreneurship education research by providing students' perceptions of entrepreneurship education, factors that influence their intentions, and a process in which students develop or change their entrepreneurial intentions. Findings provide recommendations for teaching practices that lead to improvements in curriculum design and content to effectively educate students on what entrepreneurship entails and help them explore entrepreneurial career options.

Research Questions

In the present study, I ask the following research questions:

1. What factors influence three antecedents of intention (e.g. attitudes, subjective norms, and perceived behavioral controls) as students take entrepreneurship education courses at an R1 public university?

2. How, if at all, does taking the entrepreneurship education course influence any changes, on students' attitudes, subjective norms, and behavioral controls toward entrepreneurship?

3. In what ways, if any at all, does taking an entrepreneurship education course influence students' entrepreneurial intention?

Literature Review

Entrepreneurship

Entrepreneurship is a term that is widely used across disciplines without a clearly defined definition (Mars, 2000; Fayolle, 2006; Nabi et al., 2017). Since the term 'entrepreneurship' was used in the 17th century, many scholars have attempted to elaborate concrete definitions of entrepreneurship. In addition, many scholars have attempted to define entrepreneurship, but the term remains undefined. Table 1 lists some of the major definitions of entrepreneurship introduced in the domain of entrepreneurship research.

Table 1

Definition of Entrepreneurship

Name	Year	Definition
Cantillon	1730	Entrepreneurship is self-employment of uncertain return.
Shumpeter	1932	Entrepreneurship as an innovation; making an opportunity for new goods, new method of productions, and opening of new markets to promote economic growth and change.
Drucker	1985	Entrepreneurship is the act of innovation that involves utilizing existing resources to create new wealth producing capacity.
Katz and Gartner	1988	Entrepreneurship is the creation of new organization or the process of it.
Hebert and Link	1989	Synthetic definition of entrepreneurship, acknowledging non-inclusive definition of entrepreneurship.
Kuratko and Hodgetts	2001	Entrepreneurship is a process of innovation and venture creation through the dimensions of individual, organizational, environmmental, and process.

Economist Richard Cantillon first recognized the notion of 'entrepreneurship' and the role of 'the entrepreneur' in economic theory in the late 17th century. Cantillon's approach to entrepreneurs and entrepreneurship was based on the context of economic dynamics (Mars & Metcalf, 2000). Although Cantillon's theory on entrepreneurship driven by economics did not predominate, it influenced later scholars and their literature on the definition of entrepreneurship (Schumpeter, 1934; Hebert & Link, 1989; Mars & Metcalf, 2009). Followed by Cantillon, Joseph Schumpeter's economic development theory (1934) is the most widely recognized theoretical approach to entrepreneurship (Hebert & Link, 1989; Mars & Metcalf, 2009). Schumpeter identified the entrepreneur as

one who disrupts the cyclical economic equilibrium and as the key agent in promoting economic growth and development. Then, in 1989, Hebert and Link examined the entrepreneurship literature to address the diversity of opinion on the definition of entrepreneurship. They proposed a 'synthetic' definition for the ever-evolving term "entrepreneurship" that scholars have addressed in an attempt to define entrepreneurship (Hebert & Link, 1989).

Hebert and Link's (1989) work is critical for admitting that the term "entrepreneurship" is incomplete and has a range of definitions from scholars with a lack of uniformity in defining the term. However, there is common ground within the literature on this debatable term of entrepreneurship: entrepreneurship is a process of developing attitude and aspiration to accept challenges to create a new value under uncertainty. Their 'synthetic definition,' which recognizes entrepreneurship as a process of developing an attitude toward entrepreneurship, is adopted and used throughout this research. Since the present study focuses on how students' intentions or willingness to pursue entrepreneurship change throughout students' experience from entrepreneurship education, the definition of entrepreneurship as a process of developing such attitudes is adequate for the current study.

Entrepreneurship Education

Entrepreneurship education is an educational program that promotes entrepreneurial intentions through the knowledge and skillsets required to start a business (Fayolle et al., 2006; Liñan, 2004). Entrepreneurial education encompasses applying knowledge and skills to solve real-world problems and training on how to start a new

venture (Draycott et al., 2011). The growth of entrepreneurship education reflects how universities have responded to the need for entrepreneurship education to generate a future workforce of entrepreneurs who can contribute to economic growth and job creation (Fayolle, 2006; Liñan, 2011; Rideout & Gray, 2013). As a result, the rapid increase in entrepreneurship education attracted research interest among scholars (Kuratko, 2005; Liñan , 2004; Mwasalwiba, 2010; Nabi et al., 2017; Solomon et al., 2002; Vesper & Gartner, 1997).

Many scholars have researched the content, types, and effectiveness of entrepreneurship education (Katz, 2003; Kuckertz, 2013; Kuratko, 2003, 2005; Mars & Metcalf, 2009; Pittaway & Cope, 2007; Nabi et al., 2017). First, in relation to the content of entrepreneurship education, Laukkanen (2000) discusses "education about entrepreneurship" versus "education for entrepreneurship." For example, education "for" entrepreneurship focuses on how to start a business. In contrast, education "about" entrepreneurship focuses on how to manage the enterprise, emphasizing the difference in the context of entrepreneurship education content. In addition, scholars (Laukkanen, 2000; Kuratko, 2005) found that entrepreneurship education content should consider the differences among students' backgrounds and characteristics and their level of initial entrepreneurial intention. A more recent study by Pardo-Garcia and Barac (2020) revealed that entrepreneurship education expanded beyond contributing to economic growth and generating jobs to encompass innovative training to develop students' creativity and agility to adapt to solve societal problems. Acknowledging the complexity of entrepreneurship education (e.g., varying contents, demographics of students, and

different degrees of interest and experience in entrepreneurship among students) is important in the present study because it illustrates how the entrepreneurship education experience can differ from individual to individual.

Second, the literature on entrepreneurship education explains different types of entrepreneurship education. Falkang and Alberti (2000) suggested two types of entrepreneurship education: courses that explain entrepreneurship in relevance to the economy and courses with an embedded experiential component that attempts to train students to launch an enterprise. The scholarship also describes entrepreneurship education curricula that can be categorized into (a) teaching theoretical and practical knowledge and skills (Henry & Leitch, 2005; Krueger et al., 2000) and (b) teaching through entrepreneurial experiences (Kuratko, 2005). Entrepreneurship education is not limited to traditional classroom learning and often includes experimental learning, such as entrepreneurial incubators designed to develop and launch new business ventures (Mars, 2006).

Third, the literature on entrepreneurship education emphasizes the effectiveness and assessment of entrepreneurship education (Jones, 2011; Walter & Block, 2016). Entrepreneurship education assumes that entrepreneurship can be taught and its effectiveness can be measured. Studies have shown the effectiveness of entrepreneurship education by measuring various units of analysis, such as the number of start-ups, entrepreneurial behaviors, and entrepreneurial intentions (Kuratko, 2005; Kurniawan et al., 2019; Walter & Block, 2016). Nabi et al. (2017) conducted a longitudinal study that compared higher entrepreneurial outcomes among those students who received

entrepreneurship education to their counterparts who had not. The students who received entrepreneurship education had greatly improved knowledge, skills, and engagement in entrepreneurship after graduation (Nabi, 2017).

Other studies indicate a strong association between entrepreneurship education and entrepreneurial intention (Falkang & Alberti, 2000; Fayolle et al., 2006; Kats, 2003; Piperopoulos & Dimov, 2015; Solomon, 2007). A recent study by Laguna-Sanchez et al. (2020) asserts that students attain higher entrepreneurial skills and competencies that enhance entrepreneurial intention through entrepreneurship education. Another study on the effectiveness of entrepreneurship education (Byabashaija & Katona, 2011) finds that individual attitudes toward entrepreneurship or venture creation can change over the four months of taking the course.

Similar results were also found in Athayde's (2009) findings that showed a positive attitude change toward entrepreneurship after a year of academic courses in entrepreneurship. A longitudinal study of the effectiveness of entrepreneurship education also suggested that, although entrepreneurship education lags in showing an immediate impact on the rate of entrepreneurship, entrepreneurship education is a precondition for sustainable entrepreneurial initiatives over time (Zaring et al., 2018). Despite the differences in its definition and context, research on entrepreneurship education focuses on a common theme: intention plays a key role in influencing the decision toward entrepreneurship, and entrepreneurial intention can be obtained through education.

Entrepreneurial Intention

The literature on entrepreneurial education assumes that entrepreneurial intention is a key determinant of and antecedent to an individual's pursuit of entrepreneurship (Sanchez, 2013; Sondari, 2014). Entrepreneurial intention refers to the "self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future" (Thompson, 2009, p. 676). Entrepreneurial intention is a person's motivation to make a conscious plan to pursue entrepreneurial behavior (Fayolle, 2006). Thus, entrepreneurial intention refers not only to whether an individual starts a business but also to a varying degree of intention to engage and pursue entrepreneurship (Thompson, 2009).

Entrepreneurial intention has become a critical element in entrepreneurship education research as "intentions have proven the best predictor of planned behavior" (Rueda et al., 2015, p. 62). Thus, the literature has examined whether entrepreneurship education leads to increased entrepreneurial intention, promoting entrepreneurship as a planned behavior (Boyd & Vozikis, 1994; Fayolle et al., 2006; Krueger & Carsrud, 2000; Piperopoulos & Dimov, 2015). More recently, researchers have studied cognitive aspects such as perception, attitude, and confidence influencing an individual's entrepreneurial intention and future entrepreneurial behavior (Hahn et al., 2017; Heinonen & Poikkijoki, 2006; Kuckertz, 2013; Sanchez, 2013). Similarly, Linãn et al. (2011) research illustrates that the main factors of entrepreneurial intention are personal attitude and perceived behavioral control. A qualitative study by Lucky and Minai (2014) adds to these conclusions, showing that positive attitudes toward risk-taking and aspiration for business

opportunities are essential for a student's entrepreneurial intention. In addition, many other scholars indicate that intention is the best predictor of behavior, and entrepreneurship or behavior to pursue entrepreneurship can be viewed as a planned behavior (Krueger et al., 2000; Schwarz, 2009). Throughout the literature, scholars have emphasized that entrepreneurial intention can be used as a proxy to measure the impact of entrepreneurship education on the entrepreneurial intention that leads individuals to pursue entrepreneurial behaviors. Therefore, the present study adopts entrepreneurial intention as a unit of analysis to explore how entrepreneurship education has influenced students' intentions.

In entrepreneurship education research, entrepreneurial intention is used as a proxy to examine whether entrepreneurship education has impacted students' entrepreneurial intention, which is thought to lead to students' entrepreneurial behavior, such as starting a business. Therefore, studying entrepreneurship education on entrepreneurial intention is critical to understand how any changes in students' entrepreneurial intention through entrepreneurship education courses take place. To better understand factors that influence intention through education, many scholars have used Azjen's Theory of Planned Behavior as a theoretical framework. In the next section, I elaborate further on the theoretical framework of the Theory of Planned Behavior and its application in the study.

Theoretical Framework

In this study, I employ Ajzen's (1991) Theory of Planned Behavior (TPB) to explore students' entrepreneurial intentions based on TPB's three antecedents of intention – attitude, social norms, and perceived behavioral control. TPB is a widely used social-psychological theory; it predicts a wide variety of planned behaviors, such as healthcare-related intentions (e.g., smoking and exercising) or political and social behavior like voting (Armitage & Conner, 2001).

In entrepreneurship education, TPB addresses how such education influences entrepreneurial intention, which assumes to be the main antecedent to entrepreneurial behavior, such as starting a business (Katz & Gartner, 1988; Krueger, 2009; Liñ´an et al., 2011). Entrepreneurial intention, influenced by education, is the primary predictor of future behavior (Krueger et al., 2000). TPB assumes that a person's future behavior is preceded by intention: the stronger an intention to engage in a specific behavior, the more likely the actual behavior will be performed (Ajzen, 1991). By employing TPB, scholars found a note of the impact of entrepreneurship education and its influence on entrepreneurial intentions (Mayhew et al., 2016) by analyzing factors that influence such intentions.

Attitude

Attitude is an individual's desirability and evaluation toward a certain behavior (Ferriera et al., 2017). The more favorable an individual is toward a behavior, the more likely an individual is to pursue a corresponding action, especially when an individual believes that behavior brings benefits (Ajzen, 1991, 2005). Therefore, attitude towards

entrepreneurship refers to how an individual is favorable or unfavorable to pursue entrepreneurial behavior. Entrepreneurship education can promote individuals' attitudes toward entrepreneurship (Packham et al., 2010). Although there can be different degrees of attitudes, entrepreneurship education influences an individual's attitude toward entrepreneurship (Piperopoulos & Dimov, 2015). The more favorable attitude an individual has toward entrepreneurship through education, the more likely the individual will be able to engage in entrepreneurship (Galloway & Brown, 2002; Kautonen et al., 2015; Rueda et al., 2015).

A specific event, such as taking an entrepreneurship course, can change students' attitudes toward entrepreneurial behavior (Fayolle, 2006). The present study explores how students' attitudes, an antecedent of intention, toward entrepreneurship change by taking an entrepreneurship education course. Furthermore, I explore factors that drive changes in students' attitudes that make students more or less likely to pursue entrepreneurship.

Subjective Norms

The second component in the TPB intention factor describes subjective norms. Subjective norms refer to social pressure to perform a particular behavior (Ajzen, 1991). Ajzen (1991) further elaborates that perceived social norms and relationships among family, parents, and friends influence an individual' intention to engage or not to engage in entrepreneurial behavior. For example, social pressure, which refers to how individuals feel about proceeding with behavior based on observing how others, such as friends, family, peers, and mentors, comply with certain behavior about becoming an

entrepreneur, can influence an individual's intention toward entrepreneurship (Putra et al., 2021). Depending on the social environment, social pressures that proceed with entrepreneurial behavior influence an individual's willingness to pursue entrepreneurial behavior (Ajzen, 1991; Rueda et al., 2015). The present case study explores subjective norms through interviewees' experiences with their classmates, peers, faculty, family, and friends, who may provide social pressure and inspiration to pursue entrepreneurship.

Perceived Behavioral Control

Lastly, perceived behavioral control refers to an individual's perception of their competency to perform a given behavior (Ajzen, 1991). This concept is also closely related to self-efficacy (Bandura, 1982), which refers to an individual's perceived ability or self-confidence to perform a behavior such as starting a new business. Other scholars suggest that behavioral control and self-efficacy are important in developing entrepreneurial intention (Krueger et al., 2000; Moriano et al., 2012; Rauch & Frese, 2007). Belief in the possibility of becoming an entrepreneur is a key predictor of an individual's intention (Ferreira et al., 2017; Rauch & Helsinki, 2015). One's perceived behavioral control or self-confidence can be influenced by entrepreneurship education (Liñan et al., 2011). Examining self-efficacy through students' experience in the present study, I further investigate how taking an entrepreneurship course influences any changes in students' confidence to pursue entrepreneurship.

TPB has been widely used in quantitative studies in entrepreneurship education research to measure entrepreneurial intentions (Mayhew et al., 2016; Sondari, 2014). By employing TPB in the qualitative research, I examine how entrepreneurship education

can be influenced by fostering TPB's three antecedents of intention, which is rarely studied with a qualitative approach. Specifically, I explore how students change their attitudes toward entrepreneurial behavior and pursue entrepreneurship by observing how people around them, such as classmates engage in entrepreneurship and become confident to start a business. TPB's three antecedents of intention are adopted as a guiding framework throughout this case study in research inquiries, interview questions, and data analysis.

Methodology

The present qualitative study employs a case-study design within the interpretivist paradigm, which emphasizes understanding the subjectivity of human experience (Guba & Lincoln, 1994; Heigham & Croker, 2009). The interpretive paradigm aims to understand and interpret the meanings of the subject being studied and his/her thinking in the context of the world they live and experience (Kiyunja & Kuyini, 2017). This paradigm emphasizes understanding individuals' interpretation of the world surrounding them (Guba & Lincoln, 1989). Qualitative research is interpretative research that aims to understand a specific organization or event and the participants' way of interpreting meanings that influence their intention (Creswell & Creswell, 2018; Jones et al., 2013). By employing a qualitative study, researchers can explore the perception of participants using narrative description (Creswell & Creswell, 2018). However, applying the qualitative application of TPB in entrepreneurship education and entrepreneurial intention is rarely undertaken. Most studies on entrepreneurship education and

entrepreneurial intention have been quantitative, relying on statistical implications between entrepreneurship education and entrepreneurial intention (Fayolle et al., 2006; Liñan et al., 2011; Oosterbeek et al., 2010).

While many quantitative studies adopted TPB and its three antecedents of intention as variables to measure entrepreneurship education's effectiveness on intention (Rueda et al., 2015; Sahchez, 2013), quantitative research lacks participants' interpretation of the experiences and perspectives. Therefore, this qualitative study adds new insights to the existing literature. This case study investigates the students' interpretation of entrepreneurship education, exploring factors that influence students' entrepreneurial intentions, and explores changes that participants experience, if at all, in their entrepreneurial intention. Interviews of participants are conducted to investigate their lived experiences in an entrepreneurship course (Creswell & Creswell, 2018; Yin, 2009). Through interview analysis, I address the contextual reality of entrepreneurship education and the participants' unique experiences and perspectives gained during their entrepreneurship course.

Case Study

Case studies are frequently used in higher education because the educational environment often represents "cases" (e.g., programs, events, departments, and individuals) (Jones et al., 2013). A case study facilitates researchers' understandings of individuals' real-life experiences and examines situations in great detail (Yin, 2003, 2018). For example, an entrepreneurship education course offered in the school is a real-life experience referred to as a 'case'. A case study is used when research examines 'how'

questions and the investigator has limited control over a phenomenon being studied (Yin, 1994). Case studies focus on a real-life context of a phenomenon where multiple sets of study findings can emerge(Yin, 1994). Therefore, a classroom setting is an environment where the researcher has no control over events, and the phenomenon is a real-life context. I identify an entrepreneurship course at an R1 public university as the case of this present study, and use a case study method to explore 'how' and 'why' students' entrepreneurial intention is influenced through an entrepreneurship education course.

Case study research involves studying an issue through one or more cases within a bounded system. Researchers collect in-depth information through multiple sources of data collection procedures over time (Creswell & Creswell, 2018; Yin, 2017). The present study is bounded by activity, setting, and time. First, activities are bound by those students taking this specific entrepreneurial course. Second, settings are bound to a particular entrepreneurial course and a place situated on a single campus. Finally, the university's academic duration bounds the timeframe. Employing a case study allows me to conduct an in-depth 'thick description' (Geertz, 1973) and analysis of a bounded system where findings are relevant to how entrepreneurship education influences entrepreneurial intention through TPB's three antecedents of intention.

A case study research method is a qualitative approach in which the researcher explores a bounded system (a case) through an in-depth description of the case and analysis of emerging descriptions and themes that are unique to the case (Yin, 2003). I first lay out a detailed description of the case and the issues relevant to the case. Then, I present how TPB's three antecedents of intention emerge through findings, present

themes based on the theoretical framework employed in the study, collect and analyze data, then present the findings and outcomes of the analysis. The structure of this case study method will follow the guidelines from Creswell (2007), Merriam (1988), and Yin (2003).

The Case

The present study uses an in-depth analysis of the 'case' in greater detail in a real-life context to explore entrepreneurship education and its connection to students' entrepreneurial intention. The case site is a large public research university located in Southern California. Its business department enrolls about 2,500 undergraduate students and 600 graduate students. Entrepreneurship education courses are available at both undergraduate and graduate levels as elective courses. At undergraduate level, entrepreneurship education is within a major elective course and one course is available as an upper-division business electives. Undergraduate business major or minor students are required to take 32 units of electives and the entrepreneurship education course is a four unit course. At the graduate level, entrepreneurship education course is offered as one of nine electives graduate management students can take. The main goal of an entrepreneurship course in the business department is to educate on effective practices of initiating and managing a practical business entity and discuss the career options of becoming an entrepreneur. Course contents include textbooks and case studies adapted from articles related to entrepreneurship. This particular setting is appropriate for the study and can be called a 'case' because of its boundedness in setting, timeframe, and data sampling.

The investigated course, Introduction to Entrepreneurship, is a four-unit course offered to both undergraduates and graduates at the School of Business. The course duration is one academic term in the span of ten weeks; the class meets once a week, three hours per session, and is taught by a faculty member who comes from the private industry and runs a business. The average student enrollment per quarter in the course is 60 students. The course discusses the nature of entrepreneurship and its role in the economy. Topics include identifying and evaluating business opportunities, creating a team, and acquiring financial and other resources to manage a business. In addition, the course provides foundational knowledge and skillsets required to start and sustain a business. Three entrepreneurship courses from two separate academic terms from both undergraduate and graduate level course are considered as cases in the current study.

Note on Adjusted Data Collection Due to COVID-19

Due to the recent pandemic (COVID-19), certain research conditions were adjusted, particularly in data collection involving direct contact with human subjects. Under federal, state, and institutional guidance, any data collection that involves in-person contact was replaced with non-contact online platforms due to the pandemic. All interviews were conducted remotely via Zoom. In addition, class observations were adjusted according to federal or state guidelines.

Data Collection

Interviews

One of the most important sources of case-study data collection is the interview, especially if the inquiry seeks to answer the "hows" and "whys" of issues emerging from

the case (Yin, 2013). Case study interviews also reflect participants' perspectives on entrepreneurial intention through their entrepreneurship education course experience (Yin, 1995, 2013). According to Creswell and Creswell (2018), case studies include around ten interviews to explore lived experiences and perspectives. In this study, fifteen students from three sessions were interviewed. Students enrolled in this course are undergraduate and graduate students who are majoring or minoring in business. This particular course implies boundedness in the setting and participants because of uniformity in the participants' academic backgrounds. The uniformity in demographics offers insight into how students with relatively more business education backgrounds would be inclined to change their perspective regarding TPB's three antecedents of intention as influenced by entrepreneurship education.

In the recruitment of interviewees, the instructor who teaches the entrepreneurship education course helped recruit participants by making announcements at the beginning of the course. Each interviewee's characteristics and profile, such as gender, minority status, undergraduate or graduate standing, major, prior exposure to entrepreneurial education, and family and history background, were recorded in the interview. Participants' characteristics and profiles were used to answer a sub-question on how and what differences in previous experience and exposure to entrepreneurship influence their entrepreneurial intention as they participate in the entrepreneurship education course.

Many studies on the effective influence of entrepreneurship education on entrepreneurial intention lack pre-course and post-course interviews and are limited to post-course interviews only (Fayolle, 2006; Nabi et al., 2017). Relying only on post-

course interviews prevents an explanation of experience and interpretation of the course and if studying any changes occurred in their intention during the course's whole length. The present study incorporates two consecutive interviews with each applicant – first-round interviews at the beginning of a course, followed by a follow-up interview towards the end of a course. In the post-course second-round interview, follow-up questions from the first-round interview are asked. In alignment with prior research (e.g., Ajzen, 1991), students are asked about three influential components that contribute to their intention: attitude, social norm, and perceived behavioral control questions were developed around the central and research and sub-research sub-questions. Questions were concerning the TPB's three antecedents - attitude, social norm, and perceived behavioral control. In addition, I explored the study's central theme of factors that influenced students' entrepreneurial intention through the entrepreneurship education course and the processes of developing entrepreneurial intention. The interviews aimed to ascertain student entrepreneurial motivations and entrepreneurial attitudes, their perceived control of the environment, and their comfort level in starting their own business. I also examined if any changes occurred before and after the entrepreneurship course.

One-on-one interviews were conducted at the beginning and end of the course remotely via Zoom, with around 30 minutes per interview. Interview participants volunteered at the beginning of the course. The interviews were conducted based on interview protocol and question formats that include semi-constructed and open-ended questions providing each of the TPB's intention antecedents – attitudes, subjective norms, and perceived behaviors. In the pre-course first-round interviews, students were asked

about the following: their definitions of entrepreneurship; motivations to enroll in an entrepreneurship program; perceived benefits and outcomes of the course; and experience and exposure to entrepreneurship prior to the course and their career plans. In the second-round interviews, follow-up questions from the first-round interview were asked, emphasizing their experience throughout the course. In addition, in second-round interviews, questions on any events or class activities that triggered students' change of perception of entrepreneurship or attitude toward entrepreneurship were also asked. These interview questions were aligned with the overarching research questions and sub-questions and were asked based on TPB's three antecedents of intention. All student interviews were recorded and transcribed, then analyzed based on the transcriptions. Additional interviews with instructors were conducted to contextualize student interviews and triangulate data. The total number of interviews were 31, which consists of a set of interviews from fifteen students and one from the instructor. Any interviews conducted were voluntary and were approved by the IRB prior to the data collection.

As mentioned, due to COVID-19, all interviews were conducted on a non-contact online platform. online interviews may somewhat limit non-verbal data collected from interaction with interviewees, such as facial and bodily expressions, which in general provide a richer interpretation of the interviewee's meanings than verbally-transcribed texts alone (Mann & Kvale, 2015). I spent more time at the beginning of the interview to set the stage and tone to ease any tension the interviewee may experience to resolve this potential limitation of data collection. Immediately following the interview, I set aside time to reflect on what was learned and record notes for later analysis of the transcripts.

Data Analysis

The case study analysis begins with identifying the unit of analysis (Yin, 2004, 2018). Because the case study emphasizes an in-depth description of a bounded-system unit, understanding the analysis unit is essential (Yin, 2004). The unit of analysis for the present study includes factors contributing to the development of students' entrepreneurial intention in entrepreneurship education courses based on TPB's intention antecedents. Exploring issues within the case to identify the theme that emerges from the case is one of the analytic strategies (Yin, 2003). Analyzing data by identifying themes is rich in the context in which the case presents itself (Merriam, 1988; Creswell, 2007). Next, I reviewed the collected data in manuscripts and transcriptions to classify and organize the data collected. Qualitative data analysis entails classifying patterns and categorizing characteristics to understand general patterns or unique themes that emerge from the case-study data collection (Creswell & Creswell, 2018).

I organized, reviewed, and coded once interviews were completed and transcribed. Coding consisted of two-part cycles. First-cycle coding was a structural coding applied toward a content-based or conceptual phrase, representing a topic to a segment of data for coding and categorizing (Saldaña, 2016) based on interview transcripts and actual phrases from interviewees. Structural coding helped as an initial coding to categorize transcripts and data to TPB's three conceptual antecedents. In the second cycle, I used elaborative coding. Elaborative coding "analyzes textual data to develop the theory further" (Auerbach & Silverstein, 2003, p.104). Finally, I applied TPB and the use of three antecedents of intention through this qualitative study to examine the

influence of entrepreneurship education on students' entrepreneurial intentions (Ajzen, 1991) in a qualitative study.

I used Excel for storing, managing, categorizing, and analyzing qualitative data collected from this study. Excel is often used in quantitative studies to draw statistical implications and crunch numerical data. However, using Excel in qualitative research is as effective, especially if a study aims to connect, integrate, and find relations that involve patterns that emerged from data (Bree & Gallagher, 2016). Using Excel, I entered and stored the data, then I identified, categorized, and analyzed relationships among the data collected relative to the research question. Once the unit of analysis – factors influencing students' entrepreneurial intention based on TPB's three antecedents of intention- was processed in Excel, I summarized the interpretation from findings and organized and presented.

The description of data is implicit in "what is going on" through observation conducted by the researchers (Walcott, 1994). The analysis of data explains "how things work" by identifying relationships among the data collected (Walcott, 1994, p.12). The data interpretation suggests "what is to be made of it all by providing meanings about collecting data in the case study" (Wolcott, 1994, p.12). Identifying relationships among data collected explain "how things work" regarding TPB's three antecedents influencing students' entrepreneurial intention (Saldaña, 2016). Then, the interpretation of analyzed data can explore what factors influenced students' entrepreneurial intention to take entrepreneurship education courses.

Credibility

Reviewing the study for credibility is vital to the research design (Yin, 2018). In this study, I incorporated peer review sessions once all data was collected to ensure an external check of the research process and member checking to establish credibility and solicit participants' views on findings and interpretations (Merriam, 1988; Yin, 2003). Next, explanation building and pattern matching (Saldana, 2016; Yin, 2003) are used in the data analysis phase, followed by the TPB theory to address the study's reliability. Using a case-study protocol and developing a database during the data collection phase addresses reliability concerns (Creswell & Creswell, 2018; Yin, 2018). Last, the researcher's reflexivity and positionality are used to examine my position as a researcher and to claim any biases that may reflect in the study's interpretation. In a qualitative interpretive investigation, it is important to review reflexivity and disclose the researcher's positionality for the investigation's credibility (Lichtman, 2013; Yin, 2018). Furthernore, the researcher's reflection and positionality that might influence the study's interpretation and approach are addressed.

Limitations

There are a few limitations of the present study. First, although the study incorporates two consecutive rounds of interviews pre- and post-course to gain participants' experiences during the entrepreneurship course over time, the study design remains short-term. It lacks longitudinal data on student entrepreneurial intention changes over extended periods. There can be changes in students' intention – attitude, subjective

norms, and self-efficacy – toward entrepreneurship over time. For example, students may not express immediate entrepreneurial intention during the class's duration but may develop an interest in the pursuit of entrepreneurship at a later time. However, by incorporating two rounds of interviews over time, the study fills in a current gap in the literature method that relies mostly on one-time post-course interviews. By incorporating pre-course and post-course interviews, the present study bridges a gap in current studies on entrepreneurship education and entrepreneurial intention that often rely only on post-course data collection. Two consecutive interviews are conducted throughout the course, which can help explore any changes in intention over time. Lastly, despite the lack of a longitudinal study, the present study emphasizes any changes in intention occurring within a bounded system and a timeframe.

Second, the study also posits a single-case study setting bound to the classroom setting. It lacks multiple case studies in different settings outside the classroom where entrepreneurship education is offered to cross-check findings to generate a common theme for generalization. However, the present study includes three classes to collect data, broadening the sample and data collected. Involving multiple cases to explore a phenomenon also helped strengthen the validity of the study that only involved interviews as a data collection. Data collection from a variety of data sources such as interview and observation could have helped in case study analysis. However, due to the Covid restriction, the class platform was an online setting in lieu of direct in-classroom setting, which made it more challenging to observe students' interactions and collect data in an offline setting.

Lastly, the present study also has limited data sampling from the business discipline. For example, business students may have already been exposed to entrepreneurship or education that entails start-up business and have relatively higher initial attitudes toward entrepreneurship. However, the course does not explicitly limit enrollment to business students. The course is open to all upper-division students across any discipline. By conducting data samples from two classes, more data samples are collected to accommodate any weakness a single case study may have.

Conclusion

The recent growth of entrepreneurship education offered in universities reflects an acknowledgment of the importance of entrepreneurship and higher education institutions' response to meet the entrepreneurial needs of the nation. Entrepreneurship education has gained importance in contributing to the economy and job creation. With a growing number of interests in entrepreneurship education, scholars have studied entrepreneurship education's effectiveness on entrepreneurial intention by applying TPB (Ajzen, 1991). However, despite some studies (Falkang & Alberti, 2000; Fayolle et al., 2006; Ghina, 2014; Hahn et al., 2017) showing the positive impacts of entrepreneurship education on entrepreneurial intention, limited studies have explored students' development of entrepreneurial intention.

This study contributes to the literature in three parts. First, by conducting a qualitative case study approach to entrepreneurship education research, which has been dominantly quantitative, the narrative description and findings that emerge add to the

body of literature on entrepreneurship education and entrepreneurial intentions beyond statistical implications. Second, by employing TPB (Ajzen, 1991) in a qualitative study on entrepreneurial intention, the study's findings uncover the interpreted meanings of students' experiences from the entrepreneurship education course and how each intention component in TPB (Ajzen, 1991) influenced the participants' entrepreneurial intention. Lastly, this study's findings also shed light on entrepreneurship education practices for educators to reconfigure their curricula to foster entrepreneurship.

Entrepreneurship education flourished throughout higher education over the past few decades. However, despite the growth of entrepreneurship courses in universities, research has yet to discuss content, emphasis, and assessments on effective teaching practices, and inclusive outcomes of students who receive the education. Without analyzing students' perspectives on current entrepreneurship education, it is difficult for educators to better develop and reconfigure curriculum that effectively promotes entrepreneurship. The demand for entrepreneurs and their economic contributions is ever more important. The job market trend also prefers employees who can be flexible in their roles as an employee and an employer. As we prepare students to pursue entrepreneurship, it is imperative to better understand how entrepreneurship education leads to better outcomes by analyzing factors influencing students' entrepreneurial intention. This study aims to contribute to that imperative.

CHAPTER 2

LITERATURE REVIEW

The importance of entrepreneurship prompted universities to offer entrepreneurship education courses to meet the industry's demand for creating a new workforce and the nation for developing economic growth (Katz, 2003; Kuratko, 2005; Liñan , 2004). With the growth of entrepreneurship education in higher education, many scholars have studied entrepreneurship education by analyzing whether it impacts students' entrepreneurial intentions that may lead them to pursue entrepreneurship (Kuratko, 2005). This literature review begins with the origins of entrepreneurship, the complexity of multiple views on entrepreneurship, and entrepreneurship education. Next, I offer a historical review of entrepreneurship and how higher education institutions have adopted the term into their curriculum. Followed by the origins of the term entrepreneurship and higher education's use of the terminology as well as perspectives on entrepreneurship education, I discuss entrepreneurial intention and how literature reviews the impact of entrepreneurship education on entrepreneurial intention. Then, I discuss Ajzen's Theory of Planned Behavior, a theory used in this study, to explore factors influencing students' entrepreneurial intention and how the theory has been applied to entrepreneurship education research. Lastly, I discuss the current stance of literature on entrepreneurship education and entrepreneurial intention that have evolved over a few decades alongside a boom of entrepreneurship education offered in universities.

Entrepreneurship

Despite the impact of entrepreneurship on economic growth and job creation, the term entrepreneurship itself has been debated in the literature as an inconclusive term. As Gartner (1990, p. 16) questioned: "Is entrepreneurship just a buzzword, or does it have particular characteristics that can be identified and studied," the term 'entrepreneurship' itself is widely used and interpreted over multidisciplinary subjects without a clear and inclusive definition. The word "entrepreneurship" derives from the French verb "entreprendre," which means "to undertake" (Cunningham & Lischeron, 1991). To undertake generally describes the responsibility of creating a new business venture and taking on financial risks (Gartner, 1990). In the seventeenth century, the term was first used in the economy to describe an entrepreneur, a person who takes risks to create innovations (DeFarcy, 1973; Berthold, 1951; Cunningham & Lischenron, 1991). As shown in Table 2., starting from Cantillon (1730), scholars such as Schumpeter (1932), Schultz (1980), and Hebert & Link (1989) laid the earlier foundations of entrepreneurship definitions and conceptual frameworks.

Cantillon's theory on entrepreneurs and entrepreneurship was based on economic dynamics and the equilibrium paradigm (Mars & Metcalf, 2000). Cantillon argued that an entrepreneur trades uncertainty in exchange for profit (Hebert & Link, 1989). The uncertainty of the future impact on economic dynamics is what Cantillon emphasized as a trait of an entrepreneur regarding entrepreneurship because an individual cannot foresee the future in exchange for profit (Mars & Rios-Aguilar, 2010).

Table 2

Definition of Entrepreneurship

Name	Year	Definition
Cantillon	1730	Entrepreneurship is self-employment of uncertain return.
Shumpeter	1932	Entrepreneurship as an innovation and making an opportunity for new goods, new method of productions, and opening of new markets to promote economic growth and change.
Schultz	1980	Entrepreneurship in the context of human capital that adopts training and intellectual process in creating entrepreneurship.
Hebert and Link	1989	Synthetic definition of entrepreneurship, acknowledging non-inclusive definition of entrepreneurship.

Cantillon's conception of entrepreneurs and entrepreneurship in making decisions despite uncertainty is essential to understanding the concept in economic analysis (Hebert & Link, 1989), as economic dynamics are often uncertain. Although Cantillon's theory influenced later scholars, his claim on entrepreneurship did not predominate but initiated discussions on entrepreneurship among scholars (Schumpeter, 1934; Hebert & Link, 1989; Mars & Metcalf, 2009). However, he opened up the term for later scholars, such as Schumpeter, to debate and attempted to put a period mark.

Unlike Cantillon, who emphasized entrepreneur and entrepreneurship on taking uncertainty, Schumpeter identified the entrepreneur as one who disrupts the cyclical economic equilibrium and as the critical agent in the promotion of economic growth and development (Hébert & Link, 1989; Drucker, 1993). Schumpeter referred to such a 'disruption' as "creative destruction," which he called the essence of economic

development (Schumpeter, 1934). Schumpeter emphasized the importance of entrepreneurial disruption of the economy to reallocate resources (physical, financial, human, and social), thus increasing economic efficiency and promoting growth in free-market economies (Drucker, 1993). Schumpeter described the entrepreneur as one who creates or thrives in disruptive and uncertain environments. From Schumpeter's perspective, entrepreneurship is a creation of innovation despite the unknown. Schumpeter's introduction to the economic development of a theory is the most widely recognized theoretical approach to entrepreneurship (Hebert & Link, 1989; Mars & Metcalf, 2009). Nevertheless, his approach to entrepreneurship was limited within the context of economics, which led scholars such as Schultz to approach entrepreneurship from another perspective.

T. W. Schultz, a Nobel laureate known for his pioneering work in human capital theory throughout the 1970s and early 1980s, also viewed entrepreneurship in the context of economic balance and rooted in the theory of human capital (Mars & Metcalf, 2009). Nevertheless, unlike Schumpeter's argument that entrepreneurship thrives on "creative disruption" and disequilibrium, Schultz argued that entrepreneurship is the process by which creativity and innovation are employed to bring disrupted economies back to a state of equilibrium (Hébert & Link, 1989). Schultz's conception of entrepreneurship is theoretically different from previous works by scholars such as Cantillon and Schumpeter. Schultz's perception of entrepreneurship distinguishes itself from others by incorporating human capital. Schultz's framework provides an opportunity to describe academics who invest their human and intellectual capital in creative and innovative

strategies for gaining stability in the academy and the external markets (Schultz, 1980) through investing in education. Schultz's perspective adds validity to entrepreneurship education as an individual can invest in education to pursue entrepreneurship. Although Schultz's novel approach was away from the economic realm and incorporated human capital aspects of entrepreneurship through education, his definition led scholars who oppose Schultz's view on entrepreneurship being limited to human capital.

Scholars beyond Catillon, Schumpeter, and Schultz have debated the term entrepreneurship (Mars, 2009). Then, in *search for the meaning of entrepreneurship* (1989), Hebert and Link examine views on entrepreneurship from scholarship to address the diversity of opinions on entrepreneurship. They proposed a synthetic definition of the entrepreneur as someone who specializes in taking responsibility for and making critical decisions that affect the location and the use of goods, resources, or institutions. According to Herbert and Link (1989), entrepreneurship can be defined as an entrepreneur's act of creating a new business. Hebert and Link define entrepreneurship as synthetic because they incorporate a variety of antecedents of entrepreneurship: risk, uncertainty, innovation, perception, and change (Hebert & Link, 1989). Herbert and Link described entrepreneurship in economics and business by incorporating a multi-disciplinary approach.

Hebert and Link's (1989) work is critical for admitting that the term itself needs to be completed and has a range of definitions from scholars that lack uniformity in definition. Although Hebert and Link presented a synthetic definition of entrepreneurship to accommodate the context of economic and non-economic antecedents, they still

needed to end the definition itself. Many scholars beyond Catillon, Schumpeter, Schultz, and Herber and Link have attempted to define entrepreneurship, as illustrated in Table 3.

Table 3

Evolving Definition of Entrepreneurship

Name	Year	Definition
Kuratko and Hodgetts	2001	Entrepreneurship is a process of innovation and venture creation through the dimensions of individual, organizational, environmental, and process.
Acs and Szerb	2009	Entrepreneurship is the dynamic interaction of entrepreneurial attitudes, activity, and intention that vary across individuals and stages of economic development.
Kauffman foundation	2006	Entrepreneurship is the transformation of an innovation into a sustainable enterprise that generates value.
Kao	2010	Entrepreneurship is a process of value creation

The debate on the definition of entrepreneurship is evolving because many perceive entrepreneurship from each component of what entrepreneurship may entail: innovation, risks, resource management, education, and training. In 1990, Gartner surveyed professors who teach entrepreneruship, business leaders, and politicians for their definition of entrepreneurship. Gartner categorized the responses into eight themes describing different aspects of entrepreneurship: the characteristics of an entrepreneur, innovation, venture creation, value creation, profit or nonprofit, growth, uniqueness, and the owner-manager. Amongst eight themes that emerged, two groups of clustered ideas were analyzed (Gartner, 1990). The first group of ideas focused on entrepreneurship characteristics that entails innovation, creativity, uniqueness, and management. The other

group of ideas entails entrepreneurship outcomes, such as value creation, venture creation, and growth (Gartner, 1990). In summary, Gartner's (1990) definition of entrepreneurship echoes that of Herbert and Link (1989): Entrepreneurship is complex, exists in many forms and comes with multiple meanings.

So, what is entrepreneurship? Entrepreneurship is a multi-dimensional term that describes owning a business by an entrepreneur who is being innovative, creating a new value, risking for a profit in return, making decisions with uncertainty, and much more as scholars have claimed throughout the literature. Despite many attempts made by scholars from Schumpeter to Herbert and Link (1991) and Gartner (1990), the term still remains non-conclusive. However, the center of this complex and debatable term involves 'creating new values' through starting a new business. In this paper, I define 'entrepreneurship' as the process of 'creating new values through starting a new business venture,' adopted from Hebert and Link's definition of entrepreneurship. I emphasize beyond establishing entrepreneurship as merely the process of starting a new venture. Rather, I focus on a process and the development of entrepreneurial intention (an aspiration for entrepreneurial behavior) by individuals who aspire to become an entrepreneur (Mishra & Zachary, 2015). Entrepreneurship is not an independent process, but it involves an individual, an entrepreneur, as a key player who is integral to the entrepreneurial process. Thus, it is important to understand the process of how an individual develops entrepreneurial intention that is intrinsic to the entrepreneurial process (Mishra & Zachary, 2015).

Importance of Entrepreneurship

The importance of entrepreneurship in economic development in the form of small and mid-sized enterprises (SMEs) has led to the surge of interest in entrepreneurship and the proliferation of entrepreneurship education in higher education institutions in the last few decades (Fayolle, 2006; Mars, 2009; Toma et al., 2014). Entrepreneurship plays a vital role in the growth of the U.S. economy. Throughout the economic history of the US, entrepreneurship contributed to economic development, growth and prosperity of the nation, and job creation (Toma et al., 2014). People started to value the importance of entrepreneurship around the 1980s when entrepreneurship became a major contributor to the nation's economic growth and job creation, as well as gross domestic product (GDP) (Kuratko, 2005; Toma et al., 2014). This trend continues to this date. According to the U.S. Small Business Bureau (2005), an average of 550,000 small businesses are created monthly. The nation's 31 million small businesses generated half of all U.S. economic activity between 1996 and 2004 (U.S. Small Business Bureau, 2005). The scale of GDP created by SMEs is roughly around $6 trillion, which is more than the entire GDP of Japan, the world's third-largest economy. More recently, SMEs employed 60.6 million, roughly half of the nation's workforce in 2017 (source: SUSB), and created 1.5 million net jobs in 2019 (source: BDM). These data reflect how much entrepreneurship contributes to the nation's economy.

Entrepreneurs in the U.S.

Entrepreneurs make up more than 31 million people in the U.S. workforce (source: SUSB). According to the 2019 U.S. Global Entrepreneurship Monitor (GEM) report,

more than 60 percent of Americans consider entrepreneurship a viable career path, and

nearly 70 percent of university students consider entrepreneurship as a career choice.

People recognizing entrepreneurship as a career option is an important insight that brings

the importance of entrepreneurship in workforce dynamics. By moving away from being

an employee to being an employer, entrepreneurial individuals contribute to the

workforce dynamics and add entrepreneurs as a versatile group of individuals (Toma et

al., 2014). Entrepreneurs are an agile group of workers who go back and forth within the

workforce as an employee and employer, creating workforce dynamics (Breneman,

2005). With the positive perception entrepreneurship has on people as a career option,

entrepreneurship consists of about 16 % of the adult population in the U.S. are

entrepreneurs who own SMEs as a full-time career (Babson Report, 2003). By adding

people who own some form of entrepreneurship in 2019, we have about 28.2% of

American workers associated with entrepreneurship (Intuit Quickbook, 2019). These

statistical references present that almost one out of every five American workers in the

workforce in the U.S. is an entrepreneur, which also reflects the importance of

entrepreneurship in workforce dynamics and economic growth.

The U.S. remains a hub of entrepreneurship and entrepreneurs, and they continue

to thrive (Binks et al., 2006). As data illustrated, entrepreneurs contribute to the U.S.

economy by creating jobs, driving innovation, making workforce dynamics that support a

competitive job market, and providing the opportunity for economic mobility for those

who succeed in their pathway to the middle class (Abraham & Master, 2021). The

importance of entrepreneurship and its contribution to the economy make it imperative

for higher education institutions to be responsible for cultivating future workforce, providing knowledge and skillset, and equipping people with the ability to start a business (Chmura, 2019). In the next section, I further elaborate on the emergence of entrepreneurship education in higher education.

Entrepreneurship Education in Higher Education in the U.S.

The emergence of entrepreneurship education in higher education was prompted by external factors such as intensified competition in the global market, pressure to promote the economy, and the need to train and educate a new workforce with skillsets that require more innovative and unconventional practices from the industries (Minniti et al., 2006). As a result, postsecondary institutions became a pivotal hub for promoting and training student entrepreneurs (Fotoki & Oni, 2014; Harrington & Maysami, 2015; Wilson, 2008). As entrepreneurship grew in importance, higher education institutions responded to the growing surge of entrepreneurship by offering educational courses to deliver entrepreneurial knowledge and skillsets. These skills prepare students to be more agile workers in the job market who can be both employers and employees (Kuratko, 2005; Fayolle, 2006). As a result, U.S. college university entrepreneurship programs have quadrupled in the past two decades (Katz, 2003). Moreover, these entrepreneurship education programs are considered a vital part of a startup phenomenon in the U.S. and university-based entrepreneurship incubators (Bird, 2015; Katz, 2003), promoting entrepreneurship among students and student entrepreneurs (Edelman et al., 2016). A historical review of entrepreneurship and how the term has been defined and used in higher education institutions is further elaborated in the next section.

Neoliberalism and Entrepreneruship in Higher Education.

The most significant change that underpins neoliberalism in the twenty-first century is the rise in the importance of knowledge as capital (Olssen & Peters, 2005). At an economic level, neoliberalism is linked to globalization, especially regarding the 'freedom of commerce' or 'free trade.' Adopting neoliberalism in higher education enabled higher education to engage in entrepreneurial activities for economic benefit and other sectors, such as the market and the state. The surge of entrepreneurship education with the rise of neoliberalism in the context of higher education also led to some controversial debate over the validity of adopting entrepreneurial values in the higher education domain. Many pieces of literature address entrepreneurship development in higher education in the context of economic impact and benefits (Mars, 2006). Entrepreneurial values that are solely economic-driven put higher education's value of public education in danger and make higher education vulnerable to commercialization and corporatization of public knowledge (Giroux, 2002).

Much literature discussed these market-driven and neoliberal values in higher education, such as engaging in entrepreneurship and provoking entrepreneurial values in education, which has altered how higher education should serve and provide public knowledge (Giroux, 2002). Commercialization and more engagement in entrepreneurial activities in universities kept the scientific validity of the knowledge with the gain of a commercial value. Consequently, public knowledge's scientific and technical progression was developed into marketable assets. This evolution leads public laboratories to engage in partnerships with industry, prioritizing applied research to finance their primary

research and functioning costs (Slaughter & Rhoades, 2004). This transfer of knowledge and engaging in entrepreneurial activities partnering with the private sector drew many concerns among scholars who opposed neoliberal values that put higher education's pursuit of knowledge and values at risk (Giroux, 2002; Slaughter & Rhoades, 2004). However, at the same time, entrepreneurship in higher education led to innovation and creativity and contributed to economic growth. Potter (2005) suggested that stimulating innovative and growth-oriented entrepreneurship is a critical economic and societal challenge to which universities and colleges have much to contribute as institutions, bringing benefits to society at large.

The surge of entrepreneurship education may also face criticism of being a byproduct of neoliberalism in higher education that threatens public knowledge and the institution's mission to pursue fundamental knowledge. However, as statistics implied, entrepreneurship and entrepreneurship education bring benefits such as economic growth, job creation, and cultivation of the agile workforce that the market demands. The debate over the expansion of neoliberalism in the higher education sphere is still ongoing (Giroux, 2010). In the present study, I neither criticize nor support the expansion of entrepreneurship in higher education. Instead, I acknowledge the origin of entrepreneurship in the domain of the higher education and the implication of neoliberal values that it holds. For the present study, I focus only on entrepreneurship education in the context of providing education on entrepreneurship, allowing students to explore entrepreneurship as a career option. In what follows, I discuss entrepreneurship education

and its definition, history of entrepreneurship education, types, and current state and challenges of entrepreneurship education.

Definition of Entrepreneurship Education

Entrepreneurship education can be defined as education or training to develop participants' intention of pursuing entrepreneurship through knowledge, skills, desirability, intention, and feasibility of entrepreneurial activity such as starting a business (Liñan, 2004). As Garner (1988) noted, entrepreneurship education, like entrepreneurship itself, is a complex term. The entrepreneurship education landscape is more complex and encompasses a greater level of heterogeneity (Jones & Malay, 2011) than Gartner (1985) previously contemplated. Jones and Malay (2011) expanded Gartner's idea on the complexity of entrepreneurship. They argued the nature of heterogeneity within entrepreneurship and entrepreneurship education that involve individuals involved in entrepreneurship education: students, educators, institutions, and education processes.

Gartner and Matlay suggested that entrepreneurship education is complex and perhaps even more so because of numerous stakeholders who are involved in the process – an educator, a student, the community, and an organization. Each group involved in this process represents a wide variety of needs and scope as a provider or a recipient of entrepreneurship education. In this paper, I am using entrepreneurship education as a program or training that provides knowledge and skillsets for starting a business (entrepreneurship) and offers exposure to entrepreneurship.

History of Entrepreneurship Education in the U.S.

The United States is a pioneer in the realm of entrepreneurship education (Mars & Metcalf, 2009). In 1945, Harvard Business School professor Myers Mace introduced enterprise education, which researchers believe to be an inauguration of entrepreneurship education in the U.S. and the world (Katz, 2003; Kuratko, 2005). Followed by Harvard's lead, Stanford and New York University started entrepreneurship education in their MBA curriculum in 1967, and Babson College first opened entrepreneurship education for undergraduate study in 1968 (Kuratko, 2005). The proliferation of entrepreneurship education programs over the past two decades in the United States has been well documented throughout the literature (Kuratko, 2005; Nabi et al., 2017; Solomon et al., 2002; Vesper & Gartner, 1997). The growth continued, and we now have 1600 colleges and universities that offer more than 5000 entrepreneurship education courses, set up more than 100 entrepreneurship research centers nationwide, and 142 universities offering entrepreneurship education as a major (Mwasalwiba, 2010; Fayolle, 2013). This growth reflects the acknowledgment that entrepreneurship education contributes to the development of potential entrepreneurial activities and outcomes of students (Nabi & Liñan, 2011; Rideout & Gray, 2013). Some examples of potential entrepreneurial outcomes of students are an increase in student-led new business venture creation, positive attitudes, and enhanced skills to support starting a new business (Greene & Saridakes, 2008). Furthermore, a number of graduate business startups and job creation (Greene et al., 2004; Rideout & Gray, 2013) that ultimately contribute to economic growth (Bosma et al., 2008).

Type of Entrepreneurship Education

Many scholars have documented entrepreneurship education in the context of content and what needs to be taught in entrepreneurship courses (Katz, 2003; Kuckertz, 2013; Kuratko, 2003, 2005; Mars & Metcalf, 2009; Pittaway & Cope, 2007). However, despite a body of literature attempting to provide solidifying evidence of consensus about the optimal content and approaches to be applied in entrepreneurship education, there is a lack of consensus on what entails entrepreneurship education (Fayolle, 2013; Kuratko, 2005). Entrepreneurship education should not only teach students how to manage a business but how to enter the business (Rauch & Hulsink, 2015). Solomon et al. (2002) conducted empirical analyses on entrepreneurship education and addressed that entrepreneurship education differentiates from typical business education. Pittaway and Cope (2007) described entrepreneurship education in three parts: teaching how to run a business, educating how to be more entrepreneurial, and training how to grow a successful business. Many works of the literature suggest that entrepreneurial education should include skills that need to manage, run, and start a business (e.g., Pettaway & Cope, 2007). This educational content includes training on negotiation, leadership, new product development, creative thinking, and exposure to technological innovate on and the challenges associated with each stage of venture development (Binks et al., 2006; Breneman, 2005; Galloway & Brown, 2002; Plaschka & Welsch, 1990).

Scholars have also emphasized entrepreneurship education types (Fayolle, 2013). Laukkanen (2000) differentiated education about entrepreneurship versus education for entrepreneurship. Education about entrepreneurship emphasizes providing skills and

knowledge and raising awareness of entrepreneurship (Rauch & Hulsink, 2015). Education for entrepreneurship focuses on activities and preparation for engaging and starting a new venture or startup entrepreneurship (Laukkanen, 2000). Rasmussen and Sorheim (2006) also described learning about entrepreneurship instead of learning to become an entrepreneur. Besides, entrepreneurship education is not limited to traditional classroom learning and often includes experimental knowledge, such as entrepreneurial incubators designed to develop and launch entrepreneurial enterprises (Mars, 2006).

Falkang and Alberti (2000) also addressed different emphases of entrepreneurship education: (1) courses that explain entrepreneurship in relevance to its contribution to the economy; and (2) courses with an experiential component embedded that attempt to train students to launch an enterprise. So far, literature addresses the current state of entrepreneurship education on different types of entrepreneurship education in the context of the content that is being taught either in a classroom setting or through the experimental component of the program that is designed to develop and launch new business ventures (Mars, 2006). In this study, entrepreneurship education is defined and referred to as an education about entrepreneurship that emphasizes providing skills and knowledge and raising awareness of entrepreneurship. This definition is used in this study because it emphasizes an individual's process of developing an interest or raising awareness of entrepreneurship, which also relates to entrepreneurial intention – an intention to engage in entrepreneurship. More on entrepreneurship education and entrepreneurial intention is described in later sections.

Assessing Entrepreneurship Education

The most debatable topic in entrepreneurship education lies in assessing entrepreneurship education and measuring the effectiveness of such education on increasing students' entrepreneurial intentions. The assessment of an academic program is a complex, multi-year effort that involves various stakeholders (Falkang & Alberti, 2000). Fayolle et al. (2006) also addressed that the recent broadening of entrepreneurship education beyond business school and business discipline posed additional challenges to assessing entrepreneurship education. A lack of consistency across programs and stakeholders, including colleges, students, faculty who teach, and pedagogical approaches used, is also a major limitation in assessing entrepreneurship education (Falkang & Alberti, 2000; Fayolle et al., 2006). Pittaway et al. (2009) observed that most entrepreneurship education research focused on program design and implementation while assessment practices were often omitted. In addition, few studies conducted the assessment have been validated and used across multiple stakeholders' contexts (Falkang & Alberti, 2000).

Most assessment of entrepreneurship education is often based on students' start-up rate, which is low (Nabi et al., 2017). Studies found that it takes a graduate with a potential for entrepreneurship, on average, up to 10 years to actualize a new business venture in reality (Wang et al., 2010). Heavy reliance on a low rate of immediate student-led start-ups is why assessing the effectiveness of entrepreneurship education can be misleading (Falkang et al., 2007; Solomon, 2007). According to Palomba and Banta (1999), "The ultimate emphasis of assessment is on programs rather than on individual

students" (p. 5). Entrepreneurship education significantly contributes to graduate start-ups and societal and intellectual contributors in the long run (Fayolle et al., 2006). However, there is a lack of literature that is limited to focusing solely on the outcome of a number of start-ups and disregarding anything else involved in entrepreneurship education. In addition, current literature on assessing factors of impact on entrepreneurship education tends to focus on assessing the educator as a mediator, curriculum, and pedagogies of entrepreneurship education and omit students' perspectives on the assessment of entrepreneurship education. In the next section, I address some of the challenges of entrepreneurship education and explain its current state.

Current state and Challenges of Entrepreneurship Education

The complexity of challenges that entrepreneurship education in the U.S. range from the contents to be taught, how it should be taught, who should be taking these courses, limitations on the discipline that offer entrepreneurship education, and who should teach the contents (Binks et al., 2006; Breneman, 2005; Galloway & Brown, 2002; Heinonen & Poikkijoki, 2006; Henry et al., 2005). Kurato (2003, 2005) examined the current challenges confronting entrepreneurship education using Solomon et al. (2002) and Katz's (2003) research and found the following: First, the entrepreneurship education field is becoming more so of a commodity (Katz, 2003) in the U.S., especially in business schools. Katz (2003) argues that the current state of entrepreneurship courses is reaching a maturing of the field, or becoming obsolete and common, thus addressing concerns on the stagnation of contents that are being taught in these programs that are reaching the maturing phase. Second, entrepreneurship education still heavily remains

within the business discipline and is not offered across disciplines other than business. This limitation poses a challenge regarding the diverse audience for the courses offered in the future. Scholarly findings, literature, and journal articles remain within the business discipline despite of the general need for entrepreneurship education.

Lastly, Katz (2003) and Kuratko (2003, 2005) stressed the faculty shortage challenge. As more entrepreneurship education shift or include an experience component that allows students to engage in developing and launching an enterprise actively, there is a shortage of entrepreneurship faculty at every academic rank. Despite these challenges of the current state of entrepreneurship education, it continues to grow in the U.S., preparing and increasing students' agility in the workforce and promoting entrepreneurship.

In this section, I described entrepreneurship education in higher education institutions in the U.S., starting from the history, definition, type, current state, and challenges it faces. However, in entrepreneurship education literature, the most debated and studied is an entrepreneurial intention, which is thought to be an antecedent of promoting entrepreneurship. In the next section, I elaborate on entrepreneurial intention in relation to entrepreneurship education and how it is used in this paper as a unit of analysis.

Entrepreneurial Intention

The literature on entrepreneurial education assumes that entrepreneurial intention is a key determinant of and antecedent to an individual's pursuit of entrepreneurship

(Sanchez, 2013; Sondari, 2014). In this section, I elaborate on entrepreneurial intention within entrepreneurship education research, referencing the body of literature.

As a psychological term, intention is a mental state of planning or acting. Scholars also defined *intention* as an individual's willingness to attain a goal (Ajzen, 1991), a state of mind on expected goals (Bandura, 1997), and a conscious process where individuals invest time, forethought, and focus on consequences (Loewenstein et al., 2001). According to Bird (1988), *intention* can be defined as a state of mind representing an individual's perception and action toward achieving a specific goal. As a planned process, entrepreneurship requires a cognitive structure (Brosch et al., 2018) for individuals to develop and pursue entrepreneurial behavior or action, such as starting a business.

As such, the notion of the decision-making process to engage in entrepreneurship and intention is embedded within entrepreneurship (Krueger, 2017). Thus, entrepreneurial action can be considered intentional behavior (Bird, 1988; Shapero, 1982). Entrepreneurial intention to pursue entrepreneurship, referred to in this paper, is a psychologically grounded term that refers to anticipated future behaviors (Gelderen et al., 2015; Virick et al., 2015). In the context of entrepreneurship, Bird (1988) noted and viewed entrepreneurial intention as an antecedent to the entrepreneurial action of setting up a new business venture and consciously planning to do so in the future (Thompson, 2009).

Entrepreneurial intention as an antecedent and a predictor of planned future entrepreneurial behavior (Ajzen, 1991; Krueger, 1993) gained much scholarly attention in entrepreneurship (Liñan & Fayolle, 2015). A number of studies use entrepreneurial

intention as a leading antecedent of an individual's entrepreneurial behavior (Liñan & Fayolle, 2015). However, like the term 'entrepreneurship,' entrepreneurial intention is also nonconclusive, and many scholars have attempted to define the term. Table 4 illustrates various scholars' widely used definitions of entrepreneurial intention. These definitions are applied in entrepreneurship research depending on how the definition focuses on a diverse aspect of entrepreneurial intention.

Table 4

Entrepreneurial Intention Definition Used in the Literature

Definition	Literature
State of mind that direct attention, experience and action toward a business concept	Bird, 1988
The intention of an individual to start a new business	Krueger, 1993; Krueger et al., 2000; Krueger, 2017
The self-acknowledged conviction by a person that they intent to set up a new business venture and consciously plan to do so at some point in the future	Thompson, 2009
A conscious state of mind that directs attention toward a specific goal to achieve	Finisterra et al., 2011
A desire to create business	Zhang & Cain, 2017
A process antecedent to entrepreneurial action that involves recognizing opportunities, looking for information, finding resources and establishing business strategies	Henley et al., 2017

Influencing Factors of Entrepreneurial Intention

Entrepreneurial intention research has expanded to multiple perspectives within entrepreneurship research (Nabi et al., 2009). Earlier studies of entrepreneurial intention focused on individual personality traits (Nelson & Winter, 1977) and how intention

relates to individuals' pursuit of entrepreneurship. Later, researchers emphasized demographic characteristics such as gender, age, education level, and family background to explain an individual's varying degree of entrepreneurial intention to pursue entrepreneurship (Fayolle & Liñan, 2014; Martin et al., 2013). More recently, researchers have studied cognitive aspects such as perception, attitude, and confidence influencing an individual's entrepreneurial intention and future entrepreneurial behavior (Hahn et al., 2017; Heinonen & Poikkijoki, 2006; Kuckertz, 2013; Sanchez, 2013). Similarly, Liñan et al. (2011) research illustrates that the main factors of entrepreneurial intentions are personal attitude and perceived behavioral control. A qualitative study by Lucky and Minai (2014) adds to these conclusions, showing that positive attitudes toward risk-taking and aspiration for business opportunities are essential for a student's entrepreneurial intention.

Liñan and Fayolle (2015) presented a systematic literature review on entrepreneurial intention based on 409 published papers from 2004 – 2013 to systematically categorize the current state of the research framework on entrepreneurial intention. From their analysis, Liñan and Fayolle (2015) identified five themes of entrepreneurial intention research: intention models, personality traits, entrepreneurship education, institutions and environment, and entrepreneurial process that are analyzed in the literature on entrepreneurial intention. Their systematic review of the literature on entrepreneurial intention implied categorizing entrepreneurial intention among studies and factors related to it. Donaldson (2019) later built a systematic review of entrepreneurial intention based on Liñan and Fayolle (2015) and reviewed the literature

on the entrepreneurial intention from 2014-2018. The study findings had the implication of categorizing research subjects into career choice, context, corporate intent, education, process, intention model, individual/personal, and others concerning entrepreneurial intention.

Intentions are "a person's motivation to make an effort to act upon a conscious plan or decisions" (Conner & Armitage, 1998). Entrepreneurial intention, therefore, is a person's plan to start a new business venture or entrepreneurial act. Therefore, the entrepreneurial intention is the outcome of starting up a business and a range of different levels of intention to set up a business (Thompson, 2009) and developing such an intention. This process of developing a wide range of entrepreneurial intention links well to Ajzen's Theory of Planned Behavior (1991). For instance, the more robust the intention is, the more probable the behavior is (Ajzen, 1991); therefore, entrepreneurial intention functions as a driver or mediator of entrepreneurial behavior (Fayolle et al., 2006). More on the Theory of Planned Behavior and how it links entrepreneurial intention and entrepreneurship education are further elaborated in Chapter 3 of this study. In the next section, I elaborate on the literature on entrepreneurship education and its impact on entrepreneurial intention through studies that examined factors leading to entrepreneurial intention, promoting entrepreneurship or entrepreneurial behavior (Boyd & Vozikis, 1994; Fayolle et al., 2006; Krueger & Carsrud, 2000; Piperopoulos & Dimov, 2015).

Entrepreneurship Education and Entrepreneurial Intentions

Entrepreneurship intention is considered a driver or proxy of a person's inclination to start an entrepreneurial behavior or activity in the future (Davidson, 1995). A few critical determinants of the factors that influence a person's entrepreneurial intention such as family background, personality traits, and education and training (Bird & Jelinek, 1988). Sapero and Sokol (1982) and Carsrud and Johnson (1988) also examined two factors determining a person's entrepreneurial intention; individuals and the environment. Many other scholars also have reaffirmed that individual factors such as characteristics, skills, and perception toward entrepreneurship, as well as environmental factors, which can be identified as education and training, are antecedents of entrepreneurial intention (Adenipekun, 2004; Uwameiye, 2006; Miettinen, 2006).

Entrepreneurial intention became critical in entrepreneurship education research as "intentions have proven the best predictor of planned behavior" (Rueda et al., 2015, p. 62). The role of entrepreneurship education has been expected to be one of the main drivers influencing entrepreneurial intention (Potter, 2008). The literature on entrepreneurial education and its impact on entrepreneurial intention assumes that it determines entrepreneurial education effectiveness (Sanchez, 2013). By changing the perspective from an immediate number of start-ups by students to students' attitudes toward pursuing entrepreneurship, the research emphasizes that entrepreneurship education improves individual attitudes toward entrepreneurial intention (Ferreira et al., 2017). The intention is viewed as a critical determinant and antecedent for entrepreneurial behavior (Falkang & Alberti, 2000; Fayolle et al., 2006; Kats, 2003;

Piperopoulos & Dimov, 2015; Solomon, 2007), and entrepreneurship education leads to an increase in the entrepreneurial intention that promotes entrepreneurship. Thus, entrepreneurship education is expected to increase students' entrepreneurial intention, who can be potential entrepreneurs and pursue entrepreneurship as a career option for nascent entrepreneurs (Rueda, 2010).

Scholars studied the effectiveness of entrepreneurship education through entrepreneurial intention and the antecedents of intention, such as attitude, perceived behavioral control, subjective norms, and self-efficacy (Ajzen, 1991; Fayolle & Gailly, 2015; Piperopoulos & Dimov, 2015). A systematic review of entrepreneurship education's effectiveness indicated that education impacts changes in attitude, knowledge, skills, self-efficacy, or self-acknowledgment of feasibility and entrepreneurial intention (Lüthje & Franke, 2003; Peterman & Kennedy, 2003; Souitaris et al., 2007). These changes help students pursue entrepreneurship and start a business (Nabi et al., 2017; Othman et al., 2012). Entrepreneurship education and its impact on entrepreneurial intention are well documented in the literature (Guerrero et al., 2007; Gupta et al., 2009; Fayolle et al., 2006; Sanchez, 2013; Zhang et al., 2014). Most quantitative studies (Guerrero et al., 2007; Gupta et al., 2009; Fayolle et al., 2006; Sanchez, 2013; Zhang et al., 2014) indicated that entrepreneurship education strongly correlated with entrepreneurial intention. Other studies (Mushtaq et al., 2011) examined personality, family background, prior exposure to entrepreneurship, entrepreneurial experience, and education and reported that entrepreneurship education is significantly correlated with entrepreneurial intention. Furthermore, research also suggests significant differences in

an increase in entrepreneurial intention for students who participated in entrepreneurship education (Noel et al., 2010). Entrepreneurship education impacts students' intention and positive attitude toward entrepreneurship (Packham et al., 2010) and increases students' awareness of entrepreneurship as a career (Chen et al., 2009; Kolvereid & Moen, 1997; Packham et al., 2010).

Studies on Entrepreneurship Education on Entrepreneurial Intentions

Many studies have shown that entrepreneurship education contributes to developing students' entrepreneurial intentions (Izquierdo & Buelens, 2008; Lüthje & Franke, 2003; Peterman & Kennedy, 2003; Kolvereid & Moens,1997; Souitaris et al., 2007; Fayolle et al., 2006). As suggested by Tkachev and Kolvereid: "entrepreneurial intentions are determined by factors that may be altered such as courses in entrepreneurship, education in small business management and network programs aimed at changing values, attitudes, and norms are likely to have a positive effect" (1999, p.279). Another longitude study by Varela and Jimenez (2001) that followed three Colombian universities has shown that a school that invested in entrepreneurship education on students had the highest scores in entrepreneurial intention and entrepreneurial career orientation among students. In the systematic review of 41 studies analyzing the impact of entrepreneurship education, 39 indicated a positive or mixed result (Lorz et al., 2011), and only two studies found a negative impact (Oosterbeek et al., 2010; Graevenitz et al., 2010).

Entrepreneurship education and its positive impact on an increase in entrepreneurial intention are well documented in the literature (Lüthje & Franke, 2003;

Peterman & Kennedy, 2003; Souitaris et al., 2007). However, the literature lacks a process (Hettab, 2014) of how and why entrepreneurship education forms and changes entrepreneurial intention and works to increase students' entrepreneurial intention. Understanding how entrepreneurship education works on growing students' entrepreneurial intention helps us better understand how shaping entrepreneurial intention works through entrepreneurship education.

Despite the majority of study results with a positive impact of entrepreneurship education, mixed findings on the impact of entrepreneurship education suggest more research with a robust research design (Lorz & Volery, 2011; Pittaway & Cope, 2007). For example, Pittaway & Cope (2007) found that current literature on the impact of entrepreneurship education research lacks outcomes of entrepreneurship education and research design. Also, Oosterbeek et al. (2010) called for more research on different types and variants of entrepreneurship education, and von Graevenitz et al. (2010) commented on the lack of knowledge in current literature regarding the effect of entrepreneurship education. Moreover, current literature on entrepreneurship education and entrepreneurial intention is almost exclusively in quantitative studies on the outcome of entrepreneurship education, thus lacking qualitative studies on how students develop entrepreneurial intention through entrepreneurship education with a qualitative approach.

The literature on entrepreneurship education on intention initially focused on the entrepreneur's personality trait (Nelson, 1977). Scholars have claimed that people who possess the personality trait of entrepreneurs, such as charisma, leadership, and risk-taking, are more likely to pursue entrepreneurship. Later, researchers emphasized

demographics such as gender (Chen et al., 1998; Hao et al., 2005), age, and family

background (Hout & Rosen, 1999; Tierney & Farmer, 2002; Zellweger et al., 2011) to

examine the effectiveness of entrepreneurship education (Barnier et al., 2011; Martin et

al., 2013). More recently, researchers evolved research interest to investigate students'

cognition development of intention and factors affecting intention (Donnellon et al.,

2014; Sivarajah & Achchuthan, 2013). The evolving research of entrepreneurship

education adds more insight into the nature of entrepreneurial intention and how we can

better study the impact of such an education. However, we need more than just statistical

and numeric results showing that entrepreneurship education impacts entrepreneurial

intention.

Current literature on entrepreneurship still lacks how we can better help students

with entrepreneurial self-awareness and potential career option for entrepreneurship. On

the current lack of literature, Souitaris et al. (2007, p. 587) conclude: Universities that

want to assess the effectiveness of their program should capture not only how much their

students learn about entrepreneurship or whether they are satisfied with the courses but

also whether they are inspired from the program. As Souitaris et al. (2007) have noted,

intention toward entrepreneurial behavior needs to be further investigated on factors of

entrepreneurship education that increase intention but also factors drive entrepreneurial

intention from students' perspective. Despite the importance of entrepreneurship

education on entrepreneurial intention, current literature lacks investigation on the

development of students' entrepreneurial intention through their perspective based on

students' lived experience from entrepreneurship education courses.

This study contributes to the current literature on entrepreneurship education and entrepreneurial intention in two ways. First, this study expands the methodology of research in the domain of entrepreneurship education and entrepreneurial intention by applying a qualitative research design. Second, this study goes beyond analyzing whether entrepreneurship education had a positive or negative impact on the entrepreneurial intention by focusing on the impact itself on students' entrepreneurial intention. In the next chapter, I expand on the research methodology used to answer the research questions in the current study as well as the theoretical framework.

Theory of Planned Behavior

The theory of planned behavior (Ajzen, 1991) is one of the most prominent theories used in examining socio-psychological behaviors that describe the changes in behavior through intentions (Liao et al., 2007; Kaiser, 2006; Fretschner, 2014). This theory is based on the notion that the best way to research people's behavior is to examine how likely individuals think they would perform a certain behavior. TPB has been widely used in different studies in social psychology ranging from food, health, marketing, and media studies (Kim et al., 2013; Sparks & Shepherd, 1992; Cook et al., 2002; Arvola et al., 2008) and other fields of studies such as climate change (Fielding et al., 2008), marketing (Liao et al., 2007), healthcare (Colemont & Van den Brock, 2008) and entrepreneurship (Engle et al., 2008). Using Ajzen's (1991) TPB framework, researchers studied a wide range of predicted behaviors range, from smoking behavior (Babrow et al.,

1990), ethical behavior (Flannery & May, 2000), risk-oriented behavior (Quinlan et al., 2006), or internet activity (Hsu & Chiu, 2004).

The theory of planned behavior (TPB) is one of the primarily used theories in social psychology (Liao et al., 2007; Kaiser, 2006; Fretschner, 2014) that has been extended in entrepreneurship education research to examine the entrepreneurial behavior of people by exploring people's likeliness, or individuals' intention, of pursuing an entrepreneurial behavior such as starting one's own business, which refers to entrepreneurial intention (Armitage & Conner, 2001; Kidwell & Jewell, 2003;). A number of studies apply Ajzen's TPB to examine entrepreneurial intent – the intent to start one's own business. The overwhelming majority of these studies support Ajzen's theory that individuals' intention toward a behavior is a powerful predictor of a certain behavior (Engles et al., 2008; Fayolle et al., 2006; Walker et al., 2001; Watson et al., 2014; Zemore & Ajzen, 2014). In the next section, I describe TPB's antecedents of intention according to Ajzen: attitudes, social norms, and perceived behavioral control and how each antecedent is used with entrepreneurial intention.

TPB's Antecedents of Intention

Ajzen (1991) describes in the TPB that behaviors can be predicted based on individuals' intention toward a behavior. The intention, then, is an individual's perception of the likelihood of pursuing a certain behavior (Ajzen, 1991) based on three antecedents:

- Attitudes toward the behavior
- Underlying determinants of subjective norms
- Perceived behavioral control

Figure 1

Theory of Planned Behavior

(Source: Azjen, 1991)

Figure 1illustrates how according to Ajzen's TPB model, these antecedents affect

intention leads individuals to act in certain behavior. The stronger the individual's

attitude toward a certain behavior, social desirability of behavior, and belief in self-ability

or perceived behavioral control to perform a behavior, the greater the likelihood that they

will execute a certain behavior.

In entrepreneurship research, researchers used TPB and its antecedents of

intention to examine how it affects individuals' entrepreneurial behavior. These

antecedents are combined to affect an individual's intention toward entrepreneurship,

thus lead entrepreneurial behavior such as starting one's own business (Serida & Tristán

2011; Fretschner 2014; Lortie & Castogiovanni 2015). With the expansion of the use of

TPB in the domain of entrepreneurship research, entrepreneurship education has been

added as an influential factor to these antecedents to examine the impact of

entrepreneurship education on attitude, social norms, and perceived behavioral control that influence students' entrepreneurial intention (Muhammad Zaheer Asghar et al., 2016). In what follows, I elaborate on how each antecedent of intention is explored in this study.

Attitude toward Entrepreneurship

According to Ajzen (1991), an attitude refers to how an individual is favorable or unfavorable toward a certain behavior. In understanding why individuals gravitate toward a certain behavior, many empirical studies suggest that attitude toward behavior can effectively explain an individual's intention (Krueger & Brazeal, 1994). On attitude as an antecedent of intention, as described by Ajzen, Swan et al. (2007) support that attitudes are important and that "people's views do matter (p.92)" in understanding psychological science. Certain drivers that influence people's attitudes can be benefits an individual can draw from executing certain behavior. For example, engaging in entrepreneurial behaviors such as starting one's own business can bring benefits such as autonomy and financial gain. Autonomy can be defined as a sense of independence or freedom, and financial gain refers to personal wealth, which is often seen as a motivator for individuals to seek a favorable attitude toward entrepreneurial behavior (Pruettet al., 2009; Segal et al., 2005; Van Gelderen and Jansen, 2006; Fayolle, 2004; Autio et al., 1997). Krueger et al. (2000) also found that autonomy and personal wealth are significantly related to constructing entrepreneurial intent. Individuals perceive a more assertive attitude toward entrepreneurial intention when benefits such as autonomy and financial gains are

expected from entrepreneurial activity (Pruett et al., 2009; Alstete, 2002; Segal et al., 2005, Fayolle, 2004).

In previous studies investigating students' entrepreneurial intention, researchers found that students' positive attitude toward entrepreneurship is closely relevant to entrepreneurial behaviors such as starting a business or considering an entrepreneurial career. (Entrialgo & Iglesias 2016; Liñán & Chen 2009; Fayolle & Gailly 2015). Attitude as an individual's favorable or unfavorable perception toward a behavior is a measurement to predict the likelihood of a person proceeding to start one's own business. Keurger et al. (2000) also elaborated that attitude toward entrepreneurship involves individuals' motivation to consider entrepreneurship a career choice. Previous researchers have found different antecedents that affect the attitude towards entrepreneurship, such as personal wealth, respect or prestige associated with running a business, personal autonomy, and social benefits in terms of social and economic improvement (Serida & Tristán 2011; Shapero 1982, and Krueger, Reilly, & Carsrud 2000). In this study, I explore some of the factors that influence students' attitudes toward entrepreneurship through interviews to examine how these factors, such as autonomy, personal wealth, and other motivations, impact students' attitudes toward entrepreneurial intention and how entrepreneurship education triggers some of these motivations.

Subjective Norms

Individuals' social surroundings, such as family, friends, relatives, teachers, consultants, mentors, and other significant individuals, greatly influence a person's decision-making process (Ajzen, 1991). The second component of Ajzen's TPB model

for intention is the subjective norm, which refers to a person's social surroundings that impact an individual's decision-making, thus influencing toward engaging in a certain behavior (Ajzen, 2002). Subjective norms significantly impact an individual's motivation toward a behavior through social surrounding's suggestions, ideas, support, knowledge, experience, and belief as individuals refer to a behavior (Pavlou & Fygenson, 2006). In the entrepreneurship research domain, social norms are adopted in studies to explain the individual's entrepreneurial intention to explore how social surroundings influence an individual's intention toward starting a business (Ajzen, 2001; Lee-Ross, 2017; Liñan, 2008; Tiwari et al., 2017). Other studies also supported that individuals are likely to adopt a behavior observed in social surroundings such as family members, close friends, teachers, and mentors, especially if they observe the benefits of the outcomes of behavior are great (Bandura, 1977; Liñan, 2008). Individuals observe financial gains and autonomy, for instance, as some of the beneficial outcomes of starting a business. Therefore, they are likely to grow entrepreneurial intention based on what they have observed from their close social surroundings (Pruett et al., 2009). In this study, I incorporate interviews to explore how social norms, especially teachers, mentors, and classmates from entrepreneurship education classes, have influenced and helped students' entrepreneurial intention.

Perceived Behavioral Control

The third antecedent of Ajzen's TPB intention model is perceived behavioral control, which refers to an individual's self-efficacy to perform a certain behavior (Ajzen, 1991). Perceived behavioral control is based on Bandura's (1986) self-efficacy, which

refers to an individual's perception of his ability to proceed with a behavior (Rueda et al., 2015) successfully. Research in self-efficacy explained that an individual's decision to perform a behavior is highly influenced by their confidence in their self-ability to perform a behavior (Bandura et al., 1980; Swan et al., 2007). This belief in one's abilities to successfully carry out and perform a certain behavior influences one's intention toward a behavior. Studies that explored self-efficacy and entrepreneurial intention also supported that self-efficacy is an important component of entrepreneurial intention. Education can trigger an individual's perceived behavioral control for a given situation (Fretschner, 2014; Krueger et al., 2000; Meyer et al., 1993). For example, by taking an entrepreneurship education course, individuals can gain self-confidence in entrepreneurship through their knowledge from a class and then pursue a start-up business (Krueger et al., 2000). This study explores how students have gained confidence through knowledge and experience from taking an entrepreneurship education course. Furthermore, I emphasize how entrepreneurship education influenced students' degree of self-efficacy to start a business.

Researchers used TPB's three antecedents of intention to examine how individuals determine to carry out a behavior. First, attitude toward a behavior significantly impacts the favorable or unfavorable an individual is likely to perform a behavior. Second, social norms influence an individual's decision-making by observing how one's social surroundings act and support a certain behavior. Finally, perceived behavior control influences one's belief on a degree of confidence to perform a behavior successfully. In entrepreneurship research, TPB's antecedents of intention can help explain how

individuals' entrepreneurial intention is influenced by those three antecedents of intention (Heuer, 2014). In this study, I explore three antecedents of intention to examine how each antecedent influenced students' entrepreneurial intention by taking an entrepreneurship education course through interviews. In the next section, I elaborate on the application of TPB in entrepreneurship research to support the use of TPB in the study.

Application of the TPB on Entrepreneurship Education Research

Many scholars applied TPB in entrepreneurship research concerning entrepreneurship education and its impact on entrepreneurial intention. For example, Fayolle and Gailly (2004) emphasized the importance of education in motivating an individual's intention to start a business and engage in entrepreneurship by using TPB to support their findings. Studies such as Kolvereid and Moen (1997) supported Fayolle and Gailly with a comparative study conducted between students in entrepreneurship and non-entrepreneurship majors. By employing TPB, Kolvereid, and Moen's (1997) study illustrated that students in entrepreneurship majors expressed a higher intention to start a business and were more likely to pursue entrepreneurship as a career choice than students who have not received entrepreneurship education (Heuer, 2014). A similar study by Noel (2002) also found a higher intention to venture creation amongst students who studied entrepreneurship than students who were not exposed to entrepreneurship education by adopting TPB in the study. Another study by Souitaris et al. (2007) confirmed an increase in entrepreneurial intention amongst students who participated in an entrepreneurship education program. However, students who had not participated in an entrepreneurship education program had no change in their entrepreneurial intention.

Scholars also have applied TPB's three antecedents to intention- attitudes, subjective norms, and perceived behavioral control to strengthen the theory and application to entrepreneurship research. Using entrepreneurial intention as a proxy or an indicator to predict an individual's likelihood of starting a business, scholars conducted studies that supported how entrepreneurial intention led an individual to be engaged in entrepreneurial behaviors by applying TPB (Alsos et al., 2006; Basu & Virick, 2008; Gelderen, 2017; Heuer, 2014). Numerous studies have been conducted to improve our understanding of the entrepreneurial intentions of students and how intention might lead to entrepreneurial behavior (Audet, 2004; Autio et al., 1997; Boissin & Emin, 2006; Fayolle & Gailly, 2004; Liñan, 2004; Tkachev & Kolvereid, 1999; Tounes, 2003). Evidence of previous studies that supported the application of Ajzen's TPB on entrepreneurship education on entrepreneurial intention. I base my study on TPB, mainly on how entrepreneurship education has influenced one or more antecedents of entrepreneurial intention in students.

Ajzen's TPB (Ajzen, 1991, 2005) has become a significant theory in entrepreneurship research over the past decade. It is a psychological model which supports that intentions are a better proxy to predict the future likeliness of engaging in a certain behavior of a person (Ajzen, 2005). When used in entrepreneurship research, TPB determines entrepreneurial intention as an indicator of an individual's entrepreneurial behavior, which is determined by three antecedents of intentions – attitudes, subjective norms, and perceived behavioral control (Heuer, 2014). Applying Ajzen's TPB model enables me to examine how education influence one or more of the antecedents of the

intention of students, which would impact their future entrepreneurial behavior. The degree to which we understand how students develop entrepreneurial intention and how education influences antecedents of intention can significantly contribute to our understanding of the importance of entrepreneurship education. In the next chapter, I elaborate on the research methodology used to conduct this study.

CHAPTER 3

RESEARCH METHODOLOGY

The researcher's worldview or perspective of a subject matter impacts how research design is set up to guide approaches to inquiry (Kivunja & Kuyini, 2017), followed by the research methods that carry out the research (Savenye & Robinson, 2005). The philosophical orientation gives a foundation of the researcher's philosophical assumptions, or worldview, underpinning the research project. – the ontological and epistemological (Creswell, 2014). In this research, I employed a case study design with a phenomenological approach to interviews as a qualitative method within the interpretive paradigm in the epistemological orientation of philosophy. In this chapter, I describe the research methods employed in my research to investigate entrepreneurship education and its influence on student's entrepreneurial intention. In what follows, I first describe the worldview that underpins the research structure (Creswell, 2014; Creswell & Creswell, 2017), followed by the rationale of selecting the research design and methods employed in the research, including case study and data collection. Then, I provide strategies applied in the analysis of data as well as the credibility and limitations of the study.

Research Philosophy

A philosophical orientation refers to assumptions and beliefs that support the foundation of the research and how the study will be carried out (Burns & Burns, 2008; Saunders et al., 2016). The term research philosophy relates to how knowledge develops and the nature of that knowledge (Saunders et al., 2009, p.12). As a form of philosophical

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orientation, ontology, epistemology, and axiology reflect the researcher's perspective on the research and determine the research paradigm (Guba & Lincoln, 1994). Ontology, or the nature of reality, describes how we perceive the world (Saunders et al., 2009; Creswell, 2014). Epistemology refers to the nature of knowledge and belief in how we discover knowledge about the world. Axiology refers to the value of reality and how we judge our values (Pittaway, 2005). In this research study, I selected epistemology as the foundation of the research's philosophical orientation because the research soughts to analyze the nature of knowledge of the understanding on how students' experience in entrepreneurship education course influences their entrepreneurial intention. Philosophical orientations reflect the researcher's view of the world and her or his perception as to how the research is carried out (Guba & Lincoln, 1994) and the research paradigm. In the next section, I will explore various research paradigms and the rationale for selecting the research paradigm most suitable for this research.

Research Paradigm

Paradigm, or worldview, is used and reflects how the researcher perceives the world and his or her perspectives (Kiyunja & Kuyini, 2017; Lather, 1986; Mackenzie & Knipe, 2006). The worldview is a set of beliefs embedded in the interpretation of research (Guba & Lincoln, 1994). A paradigm is a conceptual lens through which the researcher examines the methodological aspects and determines research methods, use of data, and interpretations of data analyzed (Guba & Lincoln, 1994; Kiyunja & Kuyini, 2017). Therefore, the research paradigm is important as it dictates and determines decisions

made throughout the research methodology, methods, and process, including data collection and analysis (Guba & Lincoln, 1994; Creswell, 2014).

Four research paradigms are widely referred to in the literature: Positivist, Interpretivist, Critical, and Pragmatic (Saunders et al., 2016; Tashakkori & Teddlie, 2003). The Positivist paradigm is often associated with quantitative methodology and is also known as the scientific method of investigation (Guba & Lincoln, 1994). Interpretivist is often associated with qualitative methodology and advocate understanding the viewpoint of human experience and their interpretation of the world around them (Guba & Lincoln, 1989). A critical paradigm is also a transformative paradigm that emphasizes social issues, power structures, and social justice (Creswell, 2014). Lastly, the pragmatic paradigm can be associated with both qualitative and quantitative methodology and seeks approaches to research that could be more practical and pluralistic and can be a mixed methodology (Creswell, 2014). This study aims to understand the interpretative meanings of how students' lived experiences from entrepreneurship education courses influence their entrepreneurial intention. Therefore, I selected the interpretivist paradigm, which emphasizes understanding the subjectivity of human experience (Guba & Lincoln, 1994; Heigham & Croker, 2009).

The interpretive paradigm aims to understand and interpret the meanings of the subject being studied and his/her thinking in the context of the world they live and experience (Kiyunja & Kuyini, 2017). This paradigm emphasizes the understanding of the individual and their interpretation of the world surrounding them (Guba & Lincoln, 1989). Thus, the critical element of the interpretive paradigm is that reality is socially

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constructed (Bogdan & Biklen, 1998; Guba & Lincoln, 1994; Kiyunja & Kuyini, 2017), which is also interchangeable with the Constructivist paradigm. Interpretivism is social constructionists who believe that meanings are "produced through meaningful interpretations" (Pascale, 2010, p.22). Social constructionist aims to gain an understanding of interpreted meanings (Pascale, 2011) rather than objectively measured facts (Hanson, 1958; Kiyunja & Kuyini, 2017). As students experience entrepreneurship education in classes, they interpret and construct their reality (taking an entrepreneurship education class) to have a perspective on entrepreneurship.

The interpretive paradigm was developed in response to the limitations and critiques of the positivist approach to studying social phenomena using only an objective reality (Pascale, 2011). Instead, the interpretive approach includes understanding the social construction of the phenomenon in terms of the subjective interpretation of individuals and their experiences (Bryman, 2001). Thus, the interpretive paradigm can be used in case studies, phenomenology, and narrative studies (Riyami, 2015). In the studies of entrepreneurship education and entrepreneurial intention under TPB's framework, most studies have been quantitative, validating or confirming the objective reality of whether entrepreneurship education influenced students' entrepreneurial intention by employing quantitative techniques such as correlations (Fayolle et al., 2006). However, the quantitative approach within the positivist paradigm lacks the understanding of what lies under the facts as interpreted meanings in the context of individuals' lived experience of social phenomena through an entrepreneurship education course (Yin, 2009). In addition, it is unlikely to fully distinguish the cases and effects on a generalization of

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social phenomena, such as students' development of entrepreneurial intention through entrepreneurship education courses, solely on objectives, especially when the reality is "socially constructed and not objectively determined" (Golafshani, 2003). Therefore, I framed this study under the interpretivist paradigm to explore students' interpreted meanings in the context of the socially constructed reality of taking entrepreneurship education courses.

Research Design

Suppose philosophical orientation and paradigm have a foundational guideline for the study. In that case, a researcher must determine the methodology or the research design that presents how the research will be carried out and the process of finding research inquiry (Golafshani, 2003; Hindle, 2004). Although the philosophical paradigm allows a researcher to determine the researcher's worldview in his or her attempt to inquire about research inquiries, several factors impact the choice of research methodology (Bryman, 2001; Bryman & Bell, 2011). Some of the factors to consider upon selecting a research methodology or design include the nature of the research inquiries and questions, the level of control available and required by the researcher, the availability of the resources, and the philosophical stance taken by the researcher (Heigham & Croker, 2009; Newman, 2014). In what follows, I describe the research methodology selected for this study and its relevance to the research inquiry.

More and more, qualitative studies are applied in business and management research (Cassell & Biship, 2019; Gioia et al., 2013; Strauss & Corbin, 1998) for their

advantages, such as providing rich insights that explain underlying processes that are often ignored and uncovered in quantitative studies (Guba & Lincoln, 1994; Dickson-Swift et al., 2007). In this study, the research goal and inquiry were to gain insights into how students interpret their experience from entrepreneurship education courses and factors influence their entrepreneurial intention. Thus, this study required in-depth insights into students' lived experiences from entrepreneurship education courses in a real-life context. Therefore, a qualitative approach was most suitable for the study.

The Case Study

Case study research design has increasingly been popular among qualitative researchers (Thomas, 2011) across disciplines as researchers have contributed to the methodological developments of the case study as a research design (Creswell, 2013b; Denzin & Lincoln, 2011b; Marriam, 2009; Stake, 1995; Yin, 2009). The application of case studies can be found in the fields of sociology, law, medicine, government, and education (Hafiz, 2008). For example, a case study in education can be an evaluation or assessment of educational programs where previous initiatives relied solely on quantitative methods. In addition, qualitative studies may uncover interpretive meanings of the social phenomenon that occurred through the participant's interpretation of the event or the case (Fidel, 1984; Gerring, 2004; Noor, 2008). In particular to the process of change, which can be referred to a change in the subject being studied attitude or intention or change in curriculum and its effectiveness on students, Kezar and Eckel (2002) stated that "the change process is better studied through more detailed qualitative methods such as ethnography and case study" (Kezar & Eckel, 2002, p. 296). Kezar and

Eckel's statement is in line with this present study, supporting the proper use of a qualitative case study method.

The definition of a case study is described by scholars (Merriam, 1998; Stake, 1995) as "an investigation and analysis of a single collective case, intended to capture the complexity of the object of study (Stake, 1995, pp. xi) and "an intensive, holistic description and analysis of a bounded phenomenon such as a program, an institution, a person, a process, or a social unit" (Merriam, 1998, p.xiii). Qualitative case study, then as described by Stake (1995) is defined as "naturalistic, holistic, ethnographic, phenomenological, and biographic research methods" in a bricoleur design, or in his words, "a palette of methods" (Stake, 1995, pp. xi_xii). The qualitative case study design is often considered an independent, stand-alone qualitative approach (Denzin & Lincoln, 2011) with flexibility that differs from conventional qualitative approaches such as phenomenology, ethnography, and ground theory (Patton, 1999).

There are two approaches to a case study in qualitative research. First, the qualitative case study type is within the social constructivist or interpretivist paradigm (Stake, 1995; Merriam, 2009), and second is a post-positivist paradigm (Hyett et al., 2014; Yin, 2012). A social constructivist or interpretive approach to qualitative case study involves social interaction between the researcher and the participants in the case (Rowley, 2002). Thus, the case supports a rapport build-up between the researcher and participants in the case discovery (Stake, 1995). A post-positivist approach to a case study requires a clear set of case study protocols considering validity, bias, and adequate measurement of the case elements (Yin, 2009, 2012). As discussed in the previous

section on the paradigm associated with this study, a qualitative case study within the social constructivist is employed throughout the study.

Case studies also have frameworks that guide the design of the study. For example, Stakeke (1995) proposed three case study frameworks – the intrinsic, the instrumental, and the collective case. First, the intrinsic case is often used to understand a single case and its complexities within the case. Second, an instrumental case provides insights into the phenomenon and refinement of the theory used in the study. Third, a collective case is an instrumental case using multiple cases (Stake, 1995, 1998). In this study, I used an instrumental case type to examine insights from students who take entrepreneurship education courses (a phenomenon) based on the theoretical framework of TPB.

According to Yin (1993), there are three types of case studies: exploratory, explanatory, and descriptive. An exploratory case study is used when a researcher collects data to explore research questions or continue investigating research. This case study is often used as a prelude or to conduct a pilot study in other studies (Yin, 1993; 2014). The explanatory case study examines in-depth data to explain the phenomenon in data collected for research (Noor, 2014). This type of case study often examines theory to explain the phenomenon. An explanatory case study is also deployed for a study that examines casual effects where pattern-matching strategies are often used to investigate a certain phenomenon (Yin & Moore, 1987). Finally, the descriptive case study describes a natural phenomenon and when a researcher would describe the data as they get collected (Yin, 1993, 2014). An example of a descriptive case study is a journalist's description of

an event that describes the phenomenon that took place (Yin, 1984). I have selected an explanatory case study as it is most suitable for explaining a phenomenon - entrepreneurship education course and its influence on student's entrepreneurial intention based on their lived experiences.

Case studies are frequently used in higher education because the educational environment often represents 'cases': programs, events, departments, and individuals (Jones et al., 2013). A case study facilitates understanding real-life experiences and examines situations in great detail (Yin, 2003, 2018). For example, an entrepreneurship education course offered in a school is a real-life experience referred to as a 'case.' A case study is used when research seeks responses to 'how' questions and the investigator has limited control over a phenomenon being studied (Tellis, 1997). Case studies focus on real-life phenomena where multiple study findings emerge (Tellis, 1997; Yin, 1994). In this study, a case study method explores 'how' and 'why' students develop entrepreneurial intention through an entrepreneurship education course in an environment where the researcher has no control over events and the phenomenon is in a real-life context— the classroom.

Case-study research involves studying an issue through one or more cases within a bounded system. Researchers collect in-depth information through multiple data-collection procedures over time (Creswell & Creswell, 2018; Yin, 2017). The present study is bound by activity, setting, and time. First, activities are bound by those students taking this specific entrepreneurial course. Second, the setting is bound to a particular entrepreneurial course and a place on a single campus. Lastly, the timeframe is bound to

the duration of the course. Employing a case study allows me to conduct a thick description and analysis of a bounded system where findings are relevant to how entrepreneurship education influences entrepreneurial intention through the lens of TPB's three antecedents of intention.

In the case study, the researcher explores a bounded system (a case) through an in-depth description of the case, multiple data collection (e.g., observations, interviews, documents, and reports), and analysis of emerging themes that are unique to the case (Gartner & Birley, 2002; Gerring, 2004; Hafiz, 2008). I first lay out a detailed description of the case and the issues relevant to the case. Then, I present how TPB's three antecedents of intention emerge through the findings and outcomes of the analysis. The structure of this case study method follows the guidelines from Creswell (2007), Merriam (1988), and Yin (2003). An entrepreneurship education course was used as a case of this study. I investigated how those who participated in the course developed entrepreneurial intention, what factors contributed to entrepreneurial intention, and how TPB's antecedents of intention were applied and influenced changes, if any, in students' entrepreneurial intentions. The case study was instrumental, providing rich insights into the phenomenon refined by theory (Stake, 1995) as an explanatory case study enhance the generalization of findings.

Research Questions

1. What factors influence the three antecedents of intention as described in the Theory of Planned Behavior (e.g. attitudes, subjective norms, and perceived behavioral controls), as students take entrepreneurship education courses at an R1 public university?

2. How, if at all, does taking the entrepreneurship education course influence students' attitudes, subjective norms, and behavioral controls toward entrepreneurship?

3. In what ways, if any at all, does taking an entrepreneurship education course influence students' entrepreneurial intention?

Research Methods

A case study can be either single-case or multiple-case design, depending on the research inquiry. A researcher can adopt a single-case study to investigate a phenomenon by gathering in-depth detailed information that explains and describes insights into a phenomenon (Stake, 1995; Yin, 2004). On the other hand, the multiple-case study compromises this limitation from a single-case study. The multiple-case study consists of a single case study with multiple cases replicating similar research results (Hafiz, 2008). Thus, multiple case studies enhance the generalization of results that often get criticized for conducting a single case study (Noor, 2008). Furthermore, by employing pattern matching, which links observed patterns from data with the theoretical proposition (Campbell, 1975), multiple case studies increase the rigor and robustness of the study's

method (Rowley, 2002). In this study, a multiple-case study was applied to ensure credibility and increase the robustness of the study's conclusion.

The Case: Entrepreneurship Education Course

A case is a single unit in research being studied (Yin, 1994) which can be an organization, a group of individuals, or a community where a phenomenon occurs (Sayenye & Robinson, 2005). A 'case' aims to understand the complexity of a single case or a phenomenon, conduct a study, and collect data that explains a phenomenon in greater detail (Tellis, 1997). In this case study, 'case' refers to each entrepreneurship education course studied in which students participated.

The site of the case is a large public research university located in Southern CaliforniaAt the university, entrepreneurship education is offered in a few different forms. First, entrepreneurship education is an innovative incubator that cultivates and develops university-led entrepreneurship projects initiated by students and faculty. A few entrepreneurship seminars consist of real-life practices of establishing an enterprise, patenting, and getting investments at the incubator. The incubator center is housed under the Office of Technology, where transferring university research get commercialized and partner with the private sector to explore entrepreneurial endeavors. Second, an entrepreneurship education certificate program is available at the university's institution for students, the community, and the general public. Lastly, entrepreneurship education is offered as a unit-earning academic course housed at the business school at both undergraduate and graduate levels. For this research, I am only focusing on the third type of entrepreneurship education offered at the university, which are an academic course

offered at the business school in a classroom setting. Its Business department enrolls about 2,500 undergraduate students and offers several entrepreneurship courses. Its business department enrolls about 2,500 undergraduate students and 600 graduate students. Entrepreneurship education course is available at both undergraduate and graduate level as an elective course. At undergraduate level, entrepreneurship education is within a major elective course and one course is available as an upper-division business electives. Undergraduate business major or minor students are required to take 32 units of electives and entrepreneurship education course is a 4 unit course. At graduate level, entrepreneurship education course is offered as one of 9 electives graduate management students can take. The main goal of an entrepreneurship course in the business department is to provide education on effective practices of initiating and managing a practical business entity and discuss the career options of becoming an entrepreneur. Course content includes textbooks and case studies adapted from articles related to entrepreneurship. This particular setting is appropriate for the study and can be called a 'case' because of its boundedness in setting, timeframe, and data sampling.

In this multiple-case study, I incorporated entrepreneurship education courses taught in two classes in undergraduate and one in a graduate program, all hosted in the business school. By incorporating multiple case studies with a protocol throughout data collection and analysis, I aimed to replicate similar results to enhance the credibility and generalization of the study (Vargas-Bianchi, 2020). The undergraduate entrepreneurship education course is a four-unit upper-division course in the School of Business. The course meets twice a week, 90 minutes per session, and is taught by a faculty with

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professional experience in the entrepreneurship industry. The average student enrollment

per quarter in the course is 60 students per session. The course discusses the nature of

entrepreneurship and its role in the economy. Topics include identifying and evaluating

business opportunities, creating a team, and acquiring financial and other necessary

resources to manage a business. The course provides foundational knowledge and

skillsets required to start and sustain a business and is open to all students regardless of

major.

In a graduate program, an entrepreneurship education course is a four-unit

elective course in a graduate school of management. The course duration is one academic

term; the class meets once a week, three hours per session, and is taught by an adjunct

faculty member from the private industry and has business entities and a faculty with an

indirect varying degree of involvement and experience in entrepreneurship. The course

studies the entrepreneurial process, its challenges, and the driving forces of

entrepreneurship in terms of management aspects – managerial skill, attitudes,

knowledge, and skill to start and grow a new venture. Topics include assessing

opportunities and risks, building a management team, managing resources, and executing

strategies. The course is offered only to graduate management students, who generally

consist of MBA students. I incorporated multiple cases in this study using three sessions

of entrepreneurship courses from two academic terms.

Note on Adjusted Data Collection Due to COVID-19

Due to the recent pandemic (COVID-19), certain research conditions were

adjusted, particularly in data collection involving direct contact from human subjects.

Under federal, state, and institutional guidance, any data collection that involves in-person contact was replaced with non-contact online platforms under the guidance of policy in place at the time when any data collection took place. However, as guidelines changed, some data collection methods were also adjusted. For example, when the campus went remote learning, all interviews were conducted remotely via Zoom. However, as campus reopens and some classes being offered in-person, interviews and observations went hybrid, incorporating both remote and in-person. Regardless, this research adapted adjustment according to the guideline associated with the COVID-19-related situation and federal or state guidelines.

Data Collection

A case study involves an in-depth inquiry into the case study based on research questions (Vargas-Bianchi, 2020). A case-study design draws upon in-depth data collection to probe a particular issue in organizations (Patton, 1990), enabling researchers to understand individuals' real-life experiences in greater detail (Yin, 2003). The complexity of research phenomena in real-life contexts (Morgan et al., 2016) can be addressed based on interviews of participants who lived through a phenomenon. In this research, two consecutive phenomenological interviews of participants were investigated to describe the social phenomenon of how entrepreneurship education course has influenced students' entrepreneurial intention and what factors applied influence students' intentions. Interviews of participants are conducted to investigate their lived experiences in an entrepreneurship course (Creswell & Creswell, 2018; Yin, 2009). Through

interviews, I address the contextual reality of entrepreneurship education, the participants' unique experiences, and the perspectives gained during their entrepreneurship course.

Researcher's reflectivity

In the case study, the researcher or investigator is heavily involved in the 'case,' interacting with participants (Creswell, 2017) and immersed in the 'case' in the setting (Rowley, 2009). In a qualitative study this immersed research environment is an advantage of conducting qualitative studies to collect thick-description of qualitative data (Fidel, 1984). However, this advantage is also one of the criticisms of a case study since it reflects a researcher's biased interpretation of data and findings (Yin, 2009). Thus, self-reflection of the researcher's reflectivity and the level of presence in the study should be addressed (Watt, 2007). These reflections include the researcher's preposition, personal background, experience, relationship to the case, and feelings about that relationship (Gerring, 2004; Watt, 2007). The researcher's reflectivity needs to be revised, revisited, and expanded throughout the study to data collection and emerging themes (Geering, 2004). As a researcher of this qualitative case study, I acknowledge my stance on entrepreneurship education and entrepreneurial intention and the level of self-engagement in the study.

I grew up in an entrepreneurial family where business and everything associated with it was embedded in the family. I grew up listening to everyday business whereabouts, and watching my parents work, manage employees, and stress over the business. Therefore, my interest in business and entrepreneurship is deeply connected to my personal, educational, and professional background. Growing up in an entrepreneurial

family, I genuinely developed an interest in entrepreneurship and started my career in business. I studied business throughout college and graduate school and moved on to work at a business school at a university. I also have an entrepreneurial career as a business consultant. Working at a business school, I am constantly engaged in a business environment where I discuss and mingle with students, faculty, and the business community. My initial interest in entrepreneurship is very high, and I also have a positive attitude toward entrepreneurship. I acknowledge a self-reflection on my attitude toward entrepreneurship and my preposition on the importance of entrepreneurship education in university throughout this research to minimize biases.

Phenomenological Interviews

One of the most critical sources of case-study data collection is the interview, primarily if the inquiry seeks to answer the *how* and *why* of issues emerging from the case (Bevan, 2003; Yan, 2013). However, case-study interviews also provide perceptions and insights reflecting participants' perspectives on entrepreneurial intention through their entrepreneurship education course experience (Yin, 1995, 2013). In this case study, phenomenological approaches to interview were applied to explore students' lived experiences to understand the interpreted meanings of their participation in an entrepreneurship education course and factors that influence the development of students' entrepreneurial intention (Bevan, 2014; Creswell, 2016; Groenewald, 2004).

A phenomenological approach to interview is to "discover and describe and meaning or essence of participants' lived experiences" (Hays & Singh, 2012, p.50) from an entrepreneurship education course. The purpose of applying the phenomenological

approach to interview comprises the nature of research inquiry (the development of students' entrepreneurial intention in entrepreneurship education courses) from students' perspectives and their interpretative meanings of perspectives (Groenewald, 2004; Hindle, 2004). As such, this study adopted the phenomenological interview approach in semi-structured interviews. As stated by Seidman (2013) and Creswell (2013) on the phenomenological interview approach: "lived experiences as the foundation of 'phenomena' and the emphasis on meaning in context" (Seidman, 2013, p. 16). Therefore, students' lived experiences from entrepreneurship education class can be the foundation of 'phenomena' for the study as I emphasize their meanings in the context of how they have interpreted entrepreneurship education and its influence on entrepreneurial intention. Creswell (2013) also discussed that phenomenologically inspired interviews include collecting data from participants who have shared and lived the experience of the phenomenon and asking participants a broad range of questions to cover the in-depth understanding of the phenomenon.

According to Creswell and Creswell (2018), case studies include ten interviews to explore lived experiences and perspectives. In this study, five students per class from three entrepreneurship education sessions (two undergraduate classes and one graduate class) were interviewed, making a sample size of fifteen participants. Students enrolled in this course are primarily undergraduate and graduate business students. The demographics of students within a business school imply boundedness in the uniformity of participants' academic backgrounds. The uniformity in demographics offers an insight into how students with relatively more business education backgrounds would be inclined

to exhibit any change, if at all, in their perspectives on TPB's three antecedents of intention influenced by entrepreneurship education.

Recruiting

Purposeful sampling is widely used in qualitative research to identify and select information-rich cases involving identifying and selecting participants (Patton, 2002). As Creswell (2011) described, purposeful sampling participants experienced a phenomenon of the subject matter of interest being studied. In the present case study, participants are students who have participated in an entrepreneurship education course. In addition to selecting participants, purposeful sampling also allows researchers to consider the availability and ability to communicate with participants about experiences and interpreted meanings from the phenomenon that has occurred (Bernard, 2002; Rowley, 2002; Spradley, 1979; Suri, 2011). For this study's purposeful sampling of participants, interview participants were recruited from two sessions in an undergraduate and one session in a graduate entrepreneurship education course from the business school.

For recruiting, the business school faculty who taught all three sessions helped send out an email announcement to students. In the recruiting email, brief information was addressed on the study, purpose, duration, interview method, and terms and conditions, including that interviews, are voluntary and non-paid positions. Contact information was also included for those who want to participate. Recruiting email was sent to students at the beginning of the course by the faculty on my behalf. In addition, the faculty invited me to attend the first class in each session to introduce myself, the project briefly, and recruiting detail before sending out emails. The faculty also made a

follow-up announcement the following week from when I introduced my project in class during his class time to remind students about participating in the interview.

Access

Access to participants or recruiting participants was in line with the 'availability' component of purposeful sampling. As the case study relies on in-depth information on the phenomenon (students' entrepreneurial intention and the role of entrepreneurship education), I needed to gain access to available participants willing to share their lived experiences from the course. Being a part of the institution, specifically with the business school, has provided numerous benefits in conducting this research. I have gained access to settings and participants utilizing my network at work. In recruiting interviewees, the instructors who teach entrepreneurship education courses for undergraduates and graduates helped and cooperated with me to promote participant recruiting. Before requesting access to students, I consulted with the instructor on the research – its purpose, process, and timeline, which is included in the IRB section of the research proposal.

The instructor who teaches entrepreneurship education courses to undergraduates and graduates made class announcements at the beginning of the course to promote participant recruitment. Each course was one academic semester long; two sessions – one from an undergraduate and another from a graduate, were conducted in a quarter, and the other in an undergraduate course was conducted in the following quarter. In total, this present study was conducted within one academic year consisting of two semesters. With the instructor's approval, I also introduced the study and my recruitment needs during the class session at the beginning of the course. As a follow-up, the instructor sent out a draft

I have forwarded in communication to students in the class. The draft included an introduction of myself, the research, participant recruitment, and contact information. Communication was sent to all students enrolled in the class – undergraduate and graduate, via email from the instructor on my behalf. Participation in the research was based on volunteering and students who decided to participate in the research via zoom interviews. Students who were interested in participating in the interview responded via email. Once a prospective interview participant sent an email, I arranged an interview via email.

Interview Process

The present study incorporates two consecutive interviews from each participant – first-round interviews at the beginning of a course and a follow-up interview at the end. Semi-structured interview questions were asked around the main research question, and sub-questions centered on the TPB's three antecedents - attitude, social norm, and perceived behavioral control. The semi-structured questions allowed the investigation of in-depth information on the case (entrepreneurship education course and its influence on students' entrepreneurial intention) that included factors that influenced students' entrepreneurial intention through the entrepreneurship education course. The interviews aim to ascertain student entrepreneurial motivations, entrepreneurial attitudes, perceived control of the environment, and comfort level in starting their own business. Further examination of any changes in factors influenced (*what* the factors are and *how* they promoted a change in students' entrepreneurial intention) due to taking entrepreneurship courses are also addressed.

A phenomenological approach to interview is to "discover and describe and meaning or essence of participants' lived experiences" (Hays & Singh, 2012, p.50) from an entrepreneurship education course. The purpose of applying the phenomenological approach to interview comprises the nature of research inquiry (the development of students' entrepreneurial intention in entrepreneurship education courses) from students' perspectives and their interpretative meanings of perspectives (Groenewald, 2004; Hindle, 2004). As such, this study adopted the phenomenological interview approach in semi-structured interviews.

The interview is conducted following an interview protocol and question formats that include semi-constructed and open-ended questions providing each of the TPB's intention antecedents – attitudes, subjective norms, and perceived behaviors. In the first-round interviews, students are asked about:

- Their definitions of entrepreneurship,

- Their motivations to enroll in an entrepreneurship program,

- Their perceived benefits and outcomes of the course,

- Experience and exposure to entrepreneurship before the course, as well as their career plans.

In the second-round interviews, follow-up questions from the first-found interview were asked. Questions in the second round of interviews focused on examining any events or class activities that triggered students' change of perception of entrepreneurship or attitude toward entrepreneurship occurred taking the course. These

interview questions align with the overarching research questions and sub-questions and are asked in order of research theme based on TPB's three antecedents of intention.

Each interviewee's characteristics and profile, such as gender, minority status, undergraduate or graduate standing, major, prior exposure to entrepreneurial education, and family and history background, are recorded in the interview. Table 5 shows participants profile. The participants' characteristics are used to examine whether participants' different backgrounds influence the study's findings in the data analysis section.

Table 5

Participants Profile

| Name | Gender | Ethnicity | Year | Major | Previous Entrepreneurship Experience | | Previous Entrepreneurship Education Experience |
					Direct	Indirect (Family & Friends)	
Abby	F	Asian	4th	Business	No	Yes	No
Ben	M	Asian	4th	Business	Yes	Yes	Yes
Gary	M	White	4th	Business	Yes	Yes	No
Henry	M	Hispanic	4th	Business	No	Yes	No
Candy	F	Asian	4th	Non-Business	No	Yes	No
Sharon	F	Hispanic	4th	Business	No	No	No
Mark	M	White	4th	Non-Business	No	No	No
Frank	M	Hispanic	3rd	Business	No	Yes	No
Kyle	M	Hispanic	3rd	Business	No	Yes	No
Lory	F	Asian	3rd	Business	No	Yes	No
Laurent	F	Hispanic	3rd	Non-Business	No	Yes	No
Cara	F	Asian	Grad	MBA	Yes	No	No
Janet	F	Indian	Grad	MBA	No	Yes	No
Amber	F	Asian	Grad	MBA	Yes	Yes	Yes
Meryl	F	Asian	Grad	MBA	Yes	Yes	No

The interview was conducted based on voluntary interview participants recruited from undergraduate and graduate entrepreneurship education courses. The level of students in undergraduate and graduate differed. However, students' academic backgrounds and prior experience with entrepreneurship were similar. Both undergraduate and graduate business students' profiles and prior experience in entrepreneurship varied by individuals, regardless of class level. In addition, undergraduate and graduate students included students outside of business majors. For example, the undergraduate student group included students who minored in business, and the graduate student group included students who majored in non-business majors in undergraduate studies. I recruited participants from classes with the help of the instructor and followed up with students who had shown interest in participating in the research.

All communication was done via email to confirm and set up both first and second-round interviews. Once we set a date for interviews, I provided a secure Zoom link with a one-time auto-generated password to join Zoom. All interviews were conducted remotely via Zoom, and each interview lasted around 30 minutes per interview. All student interviews were recorded and transcribed, then analyzed based on the transcriptions. Additional interviews with instructors were also conducted to contextualize student interviews and triangulate data. Fifteen students were interviewed for both first and second-round interviews, totaling 30 interviews, and one faculty interview was used for triangular analysis, which is addressed in a later section.

Data Analysis

Case study analysis requires a researcher to be a maestro of an orchestra conducting a piece of music with various instruments, in which case study analysis, these instruments can be data collected in the research (Dicksons et al., 2007). Especially in qualitative analysis, the researcher needs to map out logic and structures of evidence logically collected in various data collection (Dickson et al., 2007) and broader themes to make strong claims. Case study analysis starts with the systematical arrangement of qualitative data (narrative descriptions) into arrangements of relationships, patterns, themes, and other collections of information (Bernard & Ryan, 2010). I adopted and applied pattern-matching and explanation-building techniques to analyze the research findings in this case study analysis using TPB as a theoretical framework. In the next section, I elaborate the analysis of pattern matching using TPB's three antecedents of intentions for the present study's investigation.

Pattern Matching

In general, pattern matching involves comparing a theoretical pattern with an observed empirical pattern (Sinkovics, 2018). The underlying assumption of pattern matching is that people interpret the world around them by comparing how they perceive or observe with what they know, thus patterns emerge (Sinkovics, 2018). In line with Sinkovic's (2018) pattern matching, Hammond (1966) also discussed pattern matching as a process of what they observe externally with internal mental models, thus making interpretation of the world around us more explicit. Pattern matching is from quantitative terms to test or strengthen the validity of a study by proving how observed patterns from

the researcher's findings coincide with expected patterns driven by a theory (Campbell, 1974; Hyde, 2000; Sinkovics, 2018, Trochim, 1985). However, pattern matching can be used in qualitative approach studies (Sinkovics, 2018; Sinkovics & Yimin, 2014; Vargas-Bianchi, 2020) for the same benefit used in the quantitative study: to strengthen the study's credibility (Yazan, 2015).

The pattern matching has the following procedures that were used in the analysis in the study: 1) identify a theory to be applied and used to structure the analysis (Sinkovics, 2018); 2) Translation of theoretical patterns that will serve as expected patterns (Almutairi et al., 2014); 3) Analyze data collected, which the researcher has developed from qualitative data, to identify if the observed pattern from data collected fits the expected pattern of theory (Creswell, 2007; Sinkovics, 2018; Trochim, 1985). By providing theoretical frameworks as expected pattern, the researcher reflects the researcher's internal mental model (Sinkovics, 2018) to provide readers a guideline or a roadmap that reflect the researcher's thought process on how the researcher reached the study's conclusion (Sinkovics, 2018, Vargas-Bianch, 2020). According to Sinkovics (2018), pattern matching allows the researcher to reflect the mental models that help the "readers of the qualitative piece of work to retrace the thought processes of the investigators and to understand better how and why they arrived at the presented conclusion" (p. 23). Using Azjen's Theory of Planned Behavior and its three antecedents of intention as a theoretical framework for this study, I incorporated attitudes, subjective norms, and perceived behavioral control as patterns as I analyzed data and themes emerged from data collected.

Pattern Matching in Case Study

In general, by integrating theoretical and observational approaches, pattern matching allows the researcher to map out the implicit structure of the study and provides readers a roadmap on how the researcher concluded (Sinkovics, 2019). When applied to a case study, Yin (2009) discussed how the pattern matching process could be adapted in case study design, parallel to a general pattern matching (Sinkovics. 2019; Trochim, 1989). Sinkovinc's (2019) adapted model of pattern matching in explanatory case study design illustrates how the case study analysis process integrates theoretical approach with observational approach through various data and analysis of the data.

In this study, I used a pattern matching framework from Trochim (1989) and adapted into Sinkovic's (2019) case study pattern matching process to reach how the TPB as a theoretical framework guided analyzing observed patterns emerged from data collected. In pattern matching, theoretical approach leads conceptualization of data observed and organized. Then, pattern matching process allows conceptualized patterns from data into analyzation through patterns emerged based on a theory. In the present study, pattern matching is adopted to match patterns emerged from data collected into conceptualized theoretical patterns of TPB's three antecedents of intention. For example, based on patterns of themes emerged from students' interviews, I matched analysis into patterns in attitudes, social norms, and perceived behavioral control. In the next section, I elaborate further in detail on how this pattern matching was used in the analysis of data using coding as patterns.

The unit of analysis for my study is any changes, if applicable, in students' entrepreneurial intention due to taking entrepreneurship education courses based on TPB's intention antecedents. Analyzing data analysis by exploring issues first, followed by identifying themes, is rich in the context in which the case presents itself (Merriam, 1988; Creswell, 2007). Therefore, I explored issues within the case to identify themes and patterns that emerge as analytic strategies (Yin, 2003). First, I reviewed the collected data in manuscripts to classify and organize the data collected. Qualitative data analysis entails classifying patterns and categorizing characteristics to understand general patterns or unique themes that emerge from the case-study data collection (Creswell & Creswell, 2018). As I adapted pattern matching under TPB's theoretical framework in this case study analysis, I first categorized theoretical patterns from TPB's three intention antecedents: attitude (AT), subjective norm (SN), and perceived behavioral control (PBC) using pattern codes.

Analysis of observed patterns began with data organization, review, and coding. Next, I coded collected data using two-part cycle coding (Yin, 2009). First-cycle coding is structural coding that applies a content-based or conceptual phrase representing a topic to a segment of data for coding and categorizing (Saldaña, 2016). Structural coding should help as an initial coding to categorize interview transcripts and data into TPB's three conceptual antecedents. In the second-cycle coding, I used the elaborative coding technique to refine the theoretical framework used in this study based on an analysis of coding on TPB's antecedents (Auerbach & Silverstein, 2003). Elaborative coding is "analyzing textual data to develop the theory further" (Auerbach & Silverstein, 2003,

p.104). Pattern matching analysis also aided data analysis in comparing observed patterns with the expected theoretical pattern. In what follows, I describe a data management method used in this study for data analysis.

Using Excel to Analyze Patterns and Draw Findings

In a qualitative study, data collected is often descriptive and conceptual (Creswell, 2018). In the sea of extensive qualitative data, a researcher can feel overwhelmed and get lost. To help with the analysis of qualitative data, Yin (2009) described how qualitative software could be used in a case study database as a data organization. Also, a researcher needs to be able to categorize and analyze much and rich qualitative data collected in the contextual analysis (Yin, 2009). Qualitative software such as Dedoose, NVIVo, and ATLAS can assist descriptive qualitative data into something much more organized and analytic for representation of the data. While these softwares provide functions feasible for qualitative data analysis, I used Microsoft Excel to organize, manage, and analyze my qualitative data.

Excel is often thought to be used in quantitative data analysis for crunching numbers. However, Excel is a very effective tool for managing qualitative data, from storing transcribed interview transcriptions, categorizing themes, providing attributes, and allowing a variety of displays with notes in one sheet to facilitate analysis (Bree, 2016). Especially for this present study that requires pattern matching for the data analysis method, Excel is practical and easy for categorizing codes (first-round and second-round), and connecting patterns emerged. In qualitative data analysis, it is vital to connect one piece of information (often in text) to another to match and elaborate on

findings (Bree, 2016). Therefore, using Excel effectively filters, categorizes, manages, and groups data to easily connect information needed to draw analysis. The use of Excel in qualitative data needs the following: transferring transcription into a worksheet, generating codes, filtering based on the theme, and grouping relative information based on patterns (Bree, 2016; Meyer & Avery, 2009; Ose, 2016). In what follows, I address how I incorporated Excel in each step.

First, interviews from participants get transcribed from audio to texts in words, which then get migrated to an Excel worksheet, generating a column displays the following: Data type (interviews), participants (indicated as pseudonyms), scripts, rounds of coding, then categorized themes based on a pattern-matching method using TPB's three antecedents of intention. Participants transcribed responses are first broken down into sentences, which are displayed in each column. Then, each column of sentences gets codified into first-cycle coding based on keywords or ideas in phrases from the script.

Once first-cycle codes are done, I started second-cycle elaborative coding in the next column to refine the theoretical framework used in this study based on TPB's antecedents of intention. After finishing the first and second cycle coding, any emerging themes or patterns were categorized into a column. As themes and patterns emerge, I indicate "1" in the corresponding cell in the worksheet. Using numbers to indicate a pattern may seem quantitative, but it is not. Rather than a numeric presentation, I used '1' as a placeholder to note any pattern to be analyzed later as a summary of patterns that appeared in total to analyze which factors influenced students' intention based on TPB's

pattern matching. Figure 1 illustrates how I have managed data analysis in a worksheet in Excel.

Once I completed coded transcript with themes, I also categorized based on pattern-matching using themes and patterns emerged from scripts. For example, for a script from Frank who is a junior business student responded below when he was asked is there any changes in attitude toward entrepreneurship occurred:

> It was more like neutral, probably little bit more positive because I already saw what my dad can do with his business and not just taking on business but taking a multiple, but not extremely until I got in here. Because this course has been just reinforcing like 'yeah, I do want to do this' (Frank, Junior, Business major)

Frank's response script was first coded as 'Attitude from neutral to positive and 'Reinforcing' using his phrases. Then, it was coded as 'Attitude change positive' and 'Self-confidence' in the second-cycle coding to conceptualize his phrases into patterns based on TPB. After completing first and second-cycle coding, I matched patterns that emerged from his statement based on TPB's three antecedents of intention.

In the case of Frank's statement above, I categorized it as pattern-matching under 'Attitude' and 'PBC' because his attitude has changed, and his confidence has changed. TPB's three antecedents were categorized, and I added patterns of themes that emerged from his statement. For example, Frank indicated his initial attitudes toward entrepreneurship in relation to his father's influence. In this case, I mark 'family background' as one of the patterns to match what later on I would categorize into 'Subject Norm,' which is another antecedent of TPB's intention model.

Figure 2

Tables of Coded Responses

Type	Identity	Scripts	Code 1	Code 2	Theme 1 - Attitude	Theme 2 - Social Norm	Theme 3 - PBC
Interview	STD A	: I can say I was never specifically drawn to entrepreneurship for a long time, before maybe the last semester or Spring I was a lot more oriented toward what is it the best job I can get after college. So I start looking at software development and business operations and while I was, well, my direct future plan is still to going into fields that can bring sufficient revenue then start my business from there. I never until I past few months I involved myself into creating my own business. A lot of that had to be the job I currently have have. I work few hours a day part-time I am able to get involved into corporate environment, but at the same time, I am not particularly satisfied having a one-dimentional role of software development. I am a lot more interested in getting involved with different tasks, and that is my most recent experience between crypto investment, class, and current job I have.	NO INITIAL PLAN TO BECOME ENTREPRENEUR: (had characters for entrepreneur but didn't have a goal(intention))	ATTITUDE	1		
Interview	STD A	Its not like a pure social, but its more like my observation of social studies around me that grew me towards that (entrepreneurship).	LIKED DIFFERENT TASKS	REALIZATION OF SELF-CONFIDENCE, ATTITUDE, CONFIRMATION OF ENTREPRENEURIAL INTENTION	1	1	1
Interview	STD A	. To find a class that is more interested to expand beyond credits. I think I am taking this class more than just a credit, but more of a personal interest. It was just the topic I was interested in and I just wanted to learn more about it.	ACKNOWLEDGEMENT OF WHAT CAREER WANT		1		
	STD B_G	Me: that is very interesting perspective. Because you are an entrepreneur already, but you are taking the course, entrepreneurship, like academic course about it. So it might be very interesting for you. Has there been an attitude -- meaning like feeling, feeling about entrepreneurship, changes in attitude about entrepreneurship by taking this course?	ENTREPRENEUR WITHOUT KNOWLEDGE, BUT GAINING KNOWLEDGE	REMOTE LEARNING	1	1	
	STD B_G	: the class helped me a lot. The ideas I didn't know before I took this class. But entrepreneurship still needs experiences, instead of just reading a book or reading some ideas.	CLASS HELPED A LOT	EFFECT OF EE: LEARNED A LOT AND GAINED EXPERIENCE	1		
	STD B_G	Not changed, but motivated.	MOTIVATED	EE EFFECT: POSITIVE ATTITUDE	1		1
	STD B_G	Yes, even tho you are any other majors, everybody, well not everybody, but some people still want to do their business. Like art majors, you can start selling your art and nutrient majors can start their shops or clinics. Well, for me, I think everyone needs knowledge about entrepreneurship.	EVERYBODY WANT BUSINESS AND EVERYTHING IS BUSINESS		1		
	STD B_G	For this one (entrepreneurship) I think it should be open to whoever wants it even tho you are not in business major, but not a mandatory class, because someone may want to take it but they didn't get choices to take the course.	EVERYONE NEEDS ENTREPRENEURSHIP KNOWLEDGE		1		
	STD E	I always had an entrepreneurial mindset. I always had a small business and a side business growing up. So, the idea of starting a business and side business always interested me a lot, so I had during my time at UCR, I interned at a several different start-ups. And I worked with them on marketing and start-ups need many hands. I really loved the culture and environment of it and challenges of having very limited resources but trying to do something big.	ALWAYS HAD ENTREPRENEURIAL MINDSET	CHARACTERISTIC: BORN ENTREPRENEUR	1	1	1
	STD F	I always felt like an entrepreneur. Like, I've always came up with ideas, and always wanted to pursue them, but I just didn't have resources towards to do it, or I felt like I was overtaking the whole process. So, mm, before this, I felt like I just needed a little more help to be pushed to continued the ideas and actually get them done. I think that's why I wanted to continued pursuing courses that would help me extend that actually I get my stuff done and pursue ideas that I actually come up with.	ALWAYS FELT LIKE AN ENTREPRENEUR	INITIAL ATTITUDE: POSITIVE	1		
	STD F	Me: ok, so its more like a point of realization, like a checkpoint.	CHECKING MYSELF TO SEE IF I HAVE THESE TRAITS	ATTITUDE CHANGE: NEUTRAL/POSITIVE TO VERY	1		1
	STD F	I just remember him going thru the traits and that was a big one. Yeah, that one, everytime he said a new trait, I was like, yeah, you do need that and I do have it.	TRIGGER: CHECKLIST ENTREPRENEUR TRAITS	SELF-CONFIDENCE		1	1
	STD F	It was more like neutral, probably little bit more positive because I already saw what my dad can do with his business and not just taking on business but taking a multiple, but not extremely until I got in here. Because this course has been just reinforcing like ' yeah, I do want to do this.'	ATTITUDE: NEUTRAL/POSITIVE			1	

In addition, Frank's attitude changed from neutral to positive, so his over attitude has changed to positive. I marked the 'positive attitude change' pattern under one of the theme columns marked as 'attitude change positive.' Moreover, since he had self-reflection on his confidence, I also mark 'self-acknowledgment' as one of the emerged patterns. Frank's above comment on the Excel worksheet will then get categorized as shown in Table 5. As shown in Table 5 for Frank's statement example, Excel allows qualitative data to be organized, categorized, then managed for further analysis that can draw the study's findings. Once descriptive data get coded and categorized with the pattern-matching method utilizing TPB as a theoretical guideline, I use the filter function to group data per TPB's intention antecedents: ATTD, SN, and PBC, as shown in Figure 2.
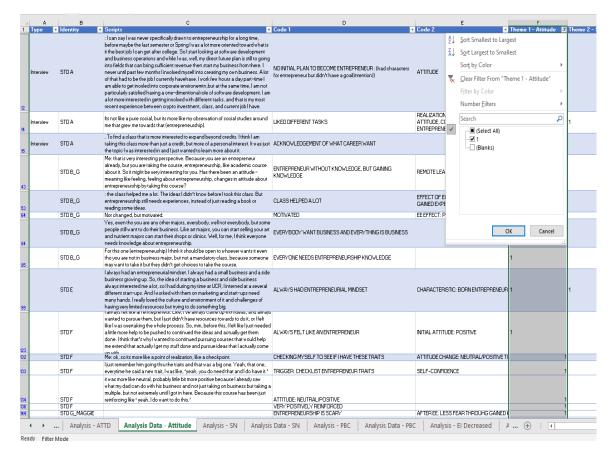
Table 6

Example of Data Coding and Patterns

Identity	Scripts	Code 1	Code 2	ATTD	SN	PBC	Self
STD Frank	It was more like neutral, probably little bit more positive because I already saw what my dad can do with his business and not just taking on business but taking a multiple, but not extremely until I got in here. Because this course has been just reinforcing like 'yeah, I do want to do this.'	ATTD NEUTRAL TO POSITIVE SAW DAD REINFORCING	ATTD POSITIVE FAMILY BACKGROU ND SELF-CONFIDENC E	1	1	1	1

Figure 3

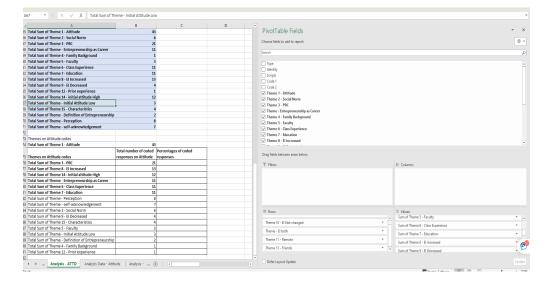*Structured by TPB's Three Antecedents of Intention*

Using the filter function, I can filter out any data marked '1' under the 'Attitude'

theme. This allows me to group descriptive data into categories under the theme of

'Attitude' with scripts, the researcher's initial coding (first and second-cycle codes), and

any other patterns that emerged. Once I have grouped them into three antecedents of

intention, for example, 'Attitude' as shown in Figure 2, I then create a pivot table to

analyze further to capture findings from the data that can lead to answering the research

questions.

Transferring data in the pivot table analyzes how a theme (e.g., attitudes, social norms, and perceived behavioral control) is related to other patterns that emerged based on findings. For example, Figure 3 illustrates how I incorporated a pivot table for the theme 'Attitude' to analyze what other patterns emerged under 'Attitude.' Using a pivot table, I can analyze data to interpret findings on factors that influenced students' attitudes based on their responses to interview questions. From a pivot table, I can rearrange the table, and analyze factors in order of total sums counted based on transcriptions, and generate various displays (e.g. charts, tables, etc.) to be used in my finding section.

Once the unit of analysis, factors, and patterns related to each TPB's intention antecedents, is processed in the case-study analytic process, data such as description, analysis, and interpretation are organized and presented (Yin, 2013; citation). The description of data is implicit in "what is going on" through observation conducted by the researchers (Walcott, 1994).

Figure 4

Analyzing Patterns Using Pivot Function in Excel

The analysis of data explains "how things work" by identifying relationships among the data collected (Gartner & Birley, 2002). The data interpretation suggests "what is to be made of it all by providing meanings about collecting data in the case study" (Yin, 2009). Data collected from observations would give a sense of "what is going on" both in the entrepreneurial course and in students' experiences (Saldaña, 2016; Walcott, 1994). Table 5 below shows how analyzed data is presented for better visibility. From this table, I can present factors that influenced students ' attitudes' (e.g., PBC, high initial attitude, entrepreneurial career, and class experience) and draw findings in the data analysis section.

Table 7

Themes on Attitudes

Themes on Attitude codes	Total number of coded responses on Attitude
PBC	**21**
EI Increased	**13**
initial attitude High	**12**
Entrepreneurship as Career	**11**
Class Experience	**11**
Education	11
Perception	8
Self-acknowledgement	7
Social Norm	6
EI Decreased	4
Characteristics	4
Faculty	3
Initial Attitude Low	3
Definition of Entrepreneurship	2
Family Background	1
Prior experience	1

I applied the same method to identify relationships among data collected by pattern-matching using Excel. Identifying relationships among data collected explains "how things work" regarding TPB's three antecedents influencing students' entrepreneurial intention. The data interpretation help explores what factors influenced students' entrepreneurial intention to take entrepreneurship education courses. These methods provide the data and analysis needed to generate answers to the research questions. I address further in detail data analysis in Chapter 4.

Institutional Review Board (IRB)

Before this research started, I submitted the research application in compliance with the Institutional Review Board (IRB) of the University of California, Riverside (UCR), which are committed to following the federal regulations for the protection of the rights and welfare of human subjects involved in the research. In addition, the UCR Office of Research Integrity requires researchers to submit and receive approval from the IRB before researching all human subjects. Therefore, I complied with the IRB's guideline requirements, applied, and waited for approval before any data collection involving human subjects.

All interviews were conducted via Zoom, which IRB approved, and participants were recruited who agreed to participate in self-volunteering. The zoom meeting room was independently set up for each participant, with auto-generated passwords per participant sent to participants two days before the interview, along with a detailed description of the interview procedure, benefits, and potential risks involved. At the beginning of the interview, I verbally introduced and went over the consent information.

The participants consented by saying "I Agree" at the end. Part of the interview consent was to agree with the interview being recorded. Therefore, I briefly explained the research and interview agenda in the beginning and asked for their consent to be recorded. For more information on verbal consent, please refer to Appendix E. I also made the participants aware that should the interview questions make them feel discomfort or experience emotional distress, they are allowed to dismiss themselves and discontinue the interview at any time. I also allowed participants ample time to ask questions and share concerns before beginning the interview.

Informed consent for the study was obtained as an alteration of the informed consent format – verbal consent. All participants verbally received information about the purpose of the study and protection of privacy that their identity and responses will remain confidential. Participants were also informed that participation is voluntary and that they may withdraw from the study at any time during the study, which no one has declined. A brief explanation regarding consent was presented at the recruitment time during the class presentation to students. At the interview, detailed information regarding consent was given to participants – see Appendix E for the Verbal consent form.

The privacy and confidentiality procedures are placed and intended to minimize these risks. Through pseudonyms and the protection of data, any identifying information of participants remain confidential. For example, participants' names were replaced with pseudonyms with little background reference in academic standing and discipline. In addition, the researcher implemented procedures to protect the confidentiality of participants. Consent forms and recorded 'agree to consent form' from the Zoom

interview were stored in a password-protected computer to which only the researcher has access. Any potential data that may have to identify information are transcribed using pseudonyms (Creswell, 2013; Lichtman, 2007). Data are kept on a secure, password-protected computer using encryption software. All transcribed audio data files were destroyed upon completion of the study. In addition, transcriptions will be deleted a year after completing the study. The researcher is granted access to an online platform where classes are conducted online or in person for observation.

Credibility and Limitation

As a qualitative research methodology, the case study is widely applied in business and management studies (Cassell & Bishop, 2019; Gioia et al., 2013). The case study allows researchers to study a phenomenon, providing rich insights explaining underlying processes in a real-life context (Auerbach & Silverstein, 2003; Creswell, 2018; Gartner & Birley, 2002). Among many advantages of conducting a case study for research, the first advantage of a case study is that the data is collected in a natural environment within a real-life context (Yin, 1984). The present study occurred in a natural classroom setting where the phenomenon was happening in a real-life context. Another prominent advantage of the case study is the in-depth description of the case where the phenomenon being studied takes place in the natural environment. Detailed qualitative data helps to explore and explain the complexities of real life that are underrepresented through quantitative accounts such as experiments or surveys (Zaidah, 2003).

Despite the advantages of applying a case study in research, the case study also has many drawbacks (Dickson-Swift et al., 2007). One drawback of a case study is often present in the qualitative study: lack of credibility and rigor (Dickson-Swift et al., 2007; Creswell, 2018). Qualitative study often receives criticism for lack of credibility in the procedure and study results that also lack generalization compared to their quantitative counterpart (Gerring, 2004). Furthermore, qualitative study is criticized and misrecognized as less robust or less rigorous than research. Like any other quantitative or qualitative study, the research will receive criticism and face challenges if conducted poorly (Hafiz, 2008). On the other hand, systematically designed research with sufficient and proper procedures may minimize the challenges associated with the study (Hindle, 2004). This section will discuss some of the challenges faced in this case study and how I employed strategies to overcome these challenges to strengthen the research.

Case study often gets challenged for credibility due to the underlying assumption that case study lacks rigor in the study (Yin, 1984). To strengthen the study's credibility, I employed pattern matching and explanation building in the data analysis phase, adapting TPB as a guideline. Pattern matching provides a systematic process of how collected data (observed pattern) integrates with the guiding theoretical framework of the study (theoretical pattern), thus giving readers a roadmap of how the researcher concluded (Patton, 1999; Sinkovics, 2018). Explanation building was also used in this case study to strengthen the description of the case study data by building an explanation about the case (Yin, 2014). In most cases, when a researcher tries to 'explain' a phenomenon in a case study, there are assumptions about *how* or *why* any event has happened in a real-life

context (Trochim, 2001; Yin, 2018). Because these *how* and *why* explanations are vastly

narrative, explanation building helps to reflect theoretical propositions that link narratives

and findings (Yazan, 2015; Yin, 2017). For example, narratives from an interview

question on "how the group project has made you think of working together as a team" is

analyzed using explanation building by categorizing responses under TPB's 'social norm'

pattern to build how social norm has influenced a student's intention toward

entrepreneurship.

Since a case study requires a researcher to be immersed in a phenomenon, collect

data, then solely analyze based on a researcher's perspective, it often receives criticism

for "biased views to influence the direction of the findings and conclusions" (Yin, 1984,

p.21). The researcher's reflexivity and positionality are used to examine my position as a

researcher and to claim any biases that may reflect in the interpretation of the study. This

reflexivity also increases the reliability of the study. In a qualitative interpretive

investigation, it is important to review reflexivity and disclose the researcher's

positionality for the investigation's credibility (Lichtman, 2013; Yin, 2018). I addressed

my positionality in the earlier section of Chapter 3 and assumptions regarding the study

by commenting on past experiences, biases, and other aspects that might influence the

study's interpretation and approach.

Other common challenges and limitations of case studies involve a lack of

generalization (Creswell, 2013; Yin, 1993). Especially for a case study depending on a

single case exploration, criticism of reliability and insufficiency on a generalization of

conclusion based on one case is unavoidable (Sayenye & Robinson, 2005; Yin, 1993).

Therefore, I conducted multiple case studies from different entrepreneurship education courses in this study to examine if the study can be replicated (Merriam, 1995; Noor, 2008; Patton, 1999). The same methods and protocols were applied in each case throughout the case study process to determine whether similar results were replicated. Furthermore, I incorporated triangulation of data, which refers to using multiple data sources in qualitative research to develop an in-depth understanding of a phenomenon (Patton, 1999). These different perspectives within the data collection help address credibility and corroborate evidence (Creswell, 2007; Yin, 2009). Lastly, I incorporated peer review or debriefing sessions once all data are collected to ensure an external check of the research process and member checking to establish credibility and solicit participants' views on findings and interpretations (Merriam, 1988; Yin, 2003).

In the next chapter, I present my findings with evidence supported by data from multiple data collection points (e.g.through interviews, observation, and documents). Findings draw answers to the research questions for this study, and I further elaborate on TPB's antecedents of intentions based on students' lived experience in entrepreneurship education courses. First, I analyze my findings based on TPB's antecedents of intention and how data findings align with the theory using pattern matching. Then, I investigate the research questions based on the study's unit of analysis. Finally, I address how the study's findings contribute to the literature regarding theory, research, and practice in entrepreneurship education research.

CHAPTER 4

FINDINGS

In this chapter, I address the study's findings and answers to the research questions based on the analysis of the data collected. The structure of this chapter has two parts: In Part 1, I address three antecedents of intention based on Ajzen's TPB. In addressing each antecedent of intention, I focus on how each antecedent is attributed to the changes in students' entrepreneurial intention based on their lived experience from the entrepreneurship education course. In Part 2, I further elaborate on evidences of findings to answer the research questions of whether and to what extent entrepreneurship education influenced students' changes in their entrepreneurial intention. I further elaborate on factors that contribute to changes and the use of the theory.
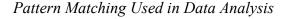
Each antecedent – attitude, subjective norms, and perceived behavioral control, was identified and analyzed based on pattern-matching analysis using the TPB as a guiding theory. Pattern matching strengthens the validity of a study by proving how observed patterns from the researcher's findings coincide with expected patterns driven by a theory (Campbell, 1974; Hyde, 2000; Sinkovics, 2018; Trochim, 1985).
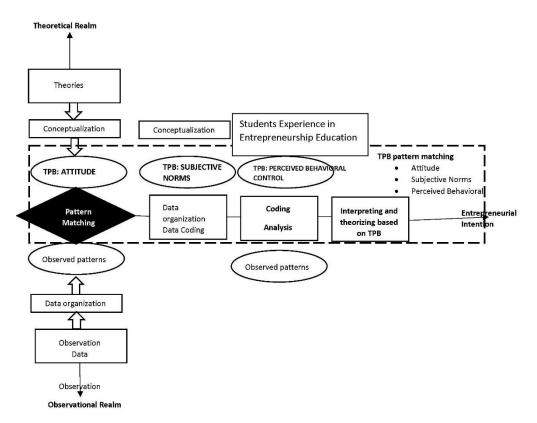
As illustrated in previous chapters, TPB is used in this study to explore any changes that occur, if at all, in students" entrepreneurial intentions. TPB is a widely used socio-behavioral theory with an underlying assumption that intention is the best predictor of future behavior (Rueda et al., 2015). Furthermore, TPB assumes an intention, defined as an individual's willingness to attain a goal (Ajzen, 1991), can be used as a proxy to determine an individual's likelihood of pursuing a certain behavior (Ajzen, 1991). In

exploring entrepreneurial intention, Ajzen elaborated that intention has three pillars of antecedents that impact an individual's intention: attitude, social norms, and perceived behavioral control (1991, 1994). Furthermore, studies suggest that entrepreneurship education contributes to entrepreneurial intention (Gupta et al., 2009; Fayolle et al., 2006; Sanchez, 2013; Nabi et al., 2017; Saleh & Idris, 2019) and fosters student's entrepreneurial behaviors such as starting a business. The findings of this study further elaborate on a continued debate of entrepreneurship education and its influence on student's entrepreneurial intention using the theory of planned behavior. In addition, I explore students' entrepreneurial intention and factors that influence any changes in intention based on their class experience.

Using TPB in entrepreneurship education research is dominant in quantitative studies exploring the relativity or statistical implication of the relationship between entrepreneurship education and its impact on entrepreneurial intention. However, more and more qualitative studies are applied in business and management studies, such as entrepreneurship education research (Cassell & Bishop, 2019; Gioia et al., 2013; Strauss & Corbin, 1998). Qualitative studies' advantages include providing rich insights that explain underlying processes often ignored and uncovered in quantitative studies (Guba & Lincoln, 1994; Dickson-Swift et al., 2007). Through the findings from this research, I elaborate insights on how students interpret their experience from entrepreneurship education courses and factors that influence their entrepreneurial intention. I focus on more than just whether entrepreneurship education positively or negatively influenced students' entrepreneurial intentions. Instead, I emphasize the contextual narrative of

students to explore how some factors influenced their intention and the process of development of such intention. Furthermore, I implement TPB's three antecedents of intention as matched patterns used in the analysis and findings referred to in Figure 5.

Figure 2

Pattern Matching Used in Data Analysis

Source: Adapted from Trochim (1989)

As shown in Figure 5, using pattern matching (Trochim, 1989), I extract the study's findings by incorporating attitude, subjective norms, and perceived behavioral control as patterns. Findings were drawn from the translation of theoretical patterns of TPB's three antecedents of intention serving as expected patterns (Almutairi et al., 2014). By incorporating the theoretical framework of TPB's intention antecedents as the

expected pattern and extending to the elaboration of the study's findings, I reflect on my internal interpretation process on how I have reached the study's findings (Sinkovics, 2018; Vargas-Branch, 2020). In Part I, I present attitude, subjective norms, and perceived behavioral norms as patterns used to explore how each antecedent impacted students' entrepreneurial intentions to pursue entrepreneurship and the factors that influenced each antecedent. Findings from Part I also answer the first two research questions addressing the summary of factors that influence students' attitudes, subjective norms, and perceived behavioral control toward entrepreneurship.

In Part II, I address the overall research question of how entrepreneurship education influenced, if at all and to what extent, students' entrepreneurial intention. This question is arguably as debatable as defining entrepreneurship itself. Plenty of research has been studied to elaborate on whether entrepreneurship education is practical or effective (Fayolle et al., 2006; Hahn et al., 2017; Krueger et al., 2000; Piperopoulos & Dimov, 2015). In Part II, I explain whether entrepreneurship education influenced students' entrepreneurial intention and further elaborate on factors that led to any changes in their entrepreneurial intention. This study incorporates providing a student's interpretation of their lived experience. I elaborate more on students' narratives to explore their insights on how their entrepreneurial intention was changed. Findings from Part II also were drawn from pattern-matching analysis using patterns of TPB's three intentional pillars.

PART 1. Three Pillars of TPB's Intention: Attitude, Subjective Norms, Perceived Behavioral Control

TPB assumes that three antecedents of intention determine and impact students' entrepreneurial intention (Bhat, 2018). As previous scholars have illustrated in their research, three antecedents of intention – attitude (personal positive or negative assessment of entrepreneurship), subjective norms (approval or disapproval of entrepreneurial act by social environment), and perceived behavioral control (perception and belief on one's ability to perform entrepreneurship), have impacted changes in students' entrepreneurial intention to pursue or not to pursue entrepreneurship (Liñán & Chen, 2009). In the findings, I emphasize the narrative of students' responses to further elaborate factors that emerged from the data collected.

First, many overall common factors or patterns of themes emerged from students' responses that fit under attitude, subjective norms, and perceived behavioral control patterns. The themes were recorded based on students' responses to interview questions and extracted from their scripts. Once first and second-cycle coding was completed, any repetitive themes, such as 'self-acknowledgments' and 'family background,' were recorded as a pattern of themes. Students' responses based on their lived experience in an entrepreneurship education course provided insight on a common theme that emerged around TPB's intention antecedents. I observed how each factor reappeared among each interview participant as a common theme where students acknowledged changes in their attitude, subjective norms, and perceived behavioral control that led to entrepreneurial intention.

Table 8

Summary of Factors that Influenced Students' Entrepreneurial Intention

Themes	Total number of coded responses	Percentages of coded responses
Class Experience	**59**	**24%**
Education	**59**	**24%**
Perception	**54**	**22%**
Family	**27**	**11%**
Faculty	21	9%
Self-acknowledgement	15	6%
Friends	6	2%
Total	241	**100%**

Table7 summarizes the result of the qualitative code of the themes and their occurrence of appearances in students' narrative responses that relate to changes in students' entrepreneurial intentions. These factors influencing entrepreneurial intention include personal, psychological, environmental, and educational factors. Seven factors emerged as patterns of themes included 1) class experience, 2) education, 3) perception, 4) faculty, 5) family, 6) friends, and 7) self-acknowledgment. These factors influencing students' entrepreneurial intention are affected by their class experience, education received through an entrepreneurship education course, their change in perception of entrepreneurship, and social influence from family and friends. In addition, students' decisions to become entrepreneurs or pursue entrepreneurship are more influenced by their changed perceptions of entrepreneurship and ability to pursue it. The factors impacting attitude, subjective norms, and perceived behavioral control on entrepreneurial

intention also determines the likelihood of students' decision to pursue an entrepreneurial career as they have a higher desire to pursue entrepreneurship (Guerrero et al., 2008). On the contrary, the same factors also have had a negative impact on the three antecedents and led to a negative or no change on students' entrepreneurial intention.

The findings indicate that class experience, education, perception change, and social surroundings such as family and friends contribute as the top factors influencing students' entrepreneurial intention as a result of taking an entrepreneurship education course. First, class experience indicated that activities, projects, discussions, and projects students did during class impacted their entrepreneurial intention. For example, a student who reflected on listening to a podcast of entrepreneurs in class helped the student to understand some of the challenge entrepreneurs go through. More details on examples from students are discussed in the later section. Next, social interactions with peers and faculty, or class activity implied as a crucial factor for students to determine a change in entrepreneurial intention. By observing how their social surroundings engage in entrepreneurship, students gravitated toward pursuing it.

Finally, education also played an important factor in influencing students' entrepreneurial intentions. In the case of the education factor, the knowledge students have gained gave a sense of confirmation that tributes to students' confidence level to determine if they want to pursue entrepreneurship. More elaboration on students' confidence levels or perceived behavioral control is discussed in the later section under Perceived Behavioral Control. Students have found that the knowledge acquired from entrepreneurship education courses changed their confidence level to pursue or not,

leading to a change in their perception of entrepreneurship as a whole. In the following

section, I elaborate more on how each factor interacts with each pattern of attitude,

subjective norms, and perceived behavioral control with examples of students'

statements.

Attitude: What you feel matters to pursue entrepreneurship

As one of the antecedents of intention described by Ajzen (1991), attitude is the

most subjective factor influencing students' entrepreneurial intention. Attitude, as

described in an earlier chapter, refers to an individual's feeling or willingness toward a

certain matter, whether it is an object, people, or behavior (Bird, 2015). The attitude

towards entrepreneurship depends on the positive or negative personal evaluation of the

entrepreneurial behavior (Ajzen, 1991). In the findings, students' responses showed that

class experience, education, perception, self-acknowledgment, and social norms had a

higher impact on student's attitudes toward entrepreneurship. Table 9 illustrates the

study's findings on factors influencing changes in students' attitudes toward

entrepreneurship as students go through entrepreneurship education courses. The top five

themes with the most responses are in bold. Based on the analysis, perceived behavioral

control, increase in entrepreneurial intention, higher initial attitude, change in students'

perspective on entrepreneurship as a career, class experience, and entrepreneurship

education influenced the most students' attitudes toward entrepreneurship.

Table 9

Themes on Attitudes Total Responses

Themes on Attitude codes	Total number of coded responses on Attitude
PBC	**21**
EI Increased	**13**
Initial attitude High	**12**
Entrepreneurship as Career	**11**
Class Experience	**11**
Education	11
Perception	8
Self-acknowledgement	7
Social Norm	6
EI Decreased	4
Characteristics	4
Faculty	3
Initial Attitude Low	3
Definition of Entrepreneurship	2
Family Background	1
Prior experience	1

In what follows, I further elaborate on above top factors that influenced students' attitudes. Moreover, I also analyze how students experienced any positive, negative, or no changes in their attitude toward entrepreneurship based on their experience from entrepreneurship education courses.

Positive Attitude

The students who expressed positive changes in attitude tended to start with a relatively higher initial positive attitude. For example, senior business students Abby and Ben responded that they had experienced a positive change in their attitude toward

entrepreneurship. As indicated below, both students responded in the first-round interview that their initial attitude toward entrepreneurship was high.

> I always felt like an entrepreneur. Like, I've always came up with ideas, and always wanted to pursue them, but I just didn't have resources towards to do it, or I felt like I was overtaking the whole process. So, mm, before this, I felt like I just needed a little more help to be pushed to continued the ideas and actually get them done. I think that's why I wanted to continued pursuing courses that would help me extend that actually I get my stuff done and pursue ideas that I actually come up with (Abby, Senior, Business Student)

> I would say just I just like it, that's the best I would say it. I don't have any answers to it, I just enjoy it. I just love it. It gets really hard, sometimes I wanna quit, there is anxiety, but it has to be hard to be worthied (Ben, Senior, Business Student)

The conviction to admit that she has 'liked,' 'enjoyed,' or 'felt like an entrepreneur' was a common theme for those with a higher initial attitude, as illustrated in the above students' responses. In addition, when Abby and Ben were asked at the end of the course regarding any changes from their initial attitude, they both expressed positive changes in their attitude toward entrepreneurship throughout the course. However, having a high initial attitude toward entrepreneurship was one of many factors influencing positive attitude change.

Entrepreneurship education courses allow students to reaffirm or evaluate their traits in comparison with entrepreneur traits (Gartner, 1988), such as risk-taking, leadership, creativity, and innovation throughout an entrepreneurship education course. This reaffirming and evaluating of self-acknowledgment played a big part in impacting students' changes in attitudes. Frank's statement below shows how taking an entrepreneurship education course promoted reaffirming of self-acknowledgment that influenced a student's attitude toward entrepreneurship.

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> I just remember him going thru the traits and that was a big one. Yeah, that one, everytime he said a new trait, I was like, 'yeah, you do need that and I do have it, ok, so its more like a point of realization, like a checkpoint (Frank, Junior Business Student)

In Frank's case, a process of confirmation or reaffirmation of self-acknowledgment was vital in the overall findings of this study because it led to changes in other factors, such as PBC, career awareness, and attitudes. For example, taking the entrepreneurship education course often served as a checkpoint to assess one's current mindset on pursuing an entrepreneurial career. Furthermore, self-acknowledgment of one's characteristics and personality traits similar to entrepreneurial traits such as leadership, risk-taking, competitiveness, and confidence (Gartner, 1988; 2006; Morrison, 2001) contribute to one's determinants to start their own business. In Frank's statement, he recalls how he re-affirmed his traits when the faculty reviewed the traits of entrepreneurs. Frank acknowledged how his traits align with the entrepreneur's traits, which made him more confident about being an entrepreneur.

Another pattern that arose from attitude findings was the contribution of education and gaining knowledge on a student's attitudes toward entrepreneurship. Throughout this study, findings showed that gaining knowledge through entrepreneurship education influenced attitudes and perceived behavioral control that led to changes in students' entrepreneurial intentions. The knowledge acquired through entrepreneurship education courses influences a student's consideration of pursuing an entrepreneurial career. Furthermore, findings also indicated that entrepreneurship education stimulated attitudes toward establishing entrepreneurial intention. Cara, a graduate business student, stated how gaining knowledge about how entrepreneurs start from zero was relatable

compared to what she used to think of starting entrepreneurship requiring many funds before taking an entrepreneurship education course.

> I think it's the knowledge I've gained and all the hardships entrepreneurs experienced, it seems like they all started from zero. So if I were to start now, I would also start from zero. Then a lot of them made these huge companies nationwide and international and it seems more possible. Like, knowing how to connect with people and like, before this class, I thought 'oh, you want to start a business, you need to have a lot of money to invest,' and then you meet a lot of people and your business can succeed, so now I know the process a lot better (Cara, Graduate Business Student)

As Cara mentioned in the above statement, gaining practical knowledge on the process of entrepreneurship helped her better understand entrepreneurship, which helped her ease up toward pursuing entrepreneurship. Another student, Lauren, a non-business student, also contested that learning more about how to create entrepreneurship helped her realize the practicality of entrepreneurship and her better understanding and perception of the entrepreneurship process.

> After taking the course, entrepreneurship is little less scary because a lot of stories we heard about, they started from a very small ideas and they branched it out. It seemed so easy. It was hard, but it sound a lot more possible now than before taking the class (Lauren, Non-Business student)

Both Cara and Lauren responded with their positive changes in attitude when they were asked about changes in attitudes at the second-round interviews. The above statements from interview participants also represent how students gained knowledge through the class that influenced a change in their attitudes and perceptions of entrepreneurship.

Another exciting factor found in the study is that some students expressed positive attitude change without any of certain describable factors that triggered changes in attitudes. Unlike other examples of students who expressed a positive change in attitudes toward entrepreneurship because of contributing influential factors such as knowledge

acquisition or self-acknowledgment (e.g., in the cases of Frank, Cara, and Lauren),

students expressed their positive attitude after completing the course. These students had

a genuine interest in entrepreneurship and an initial high attitude toward entrepreneurship

before taking the course. In this case of students, the class served as an amplifier to

promote their current interest or decision to pursue entrepreneurship. Below, senior

students in business majors expressed their genuine interest in entrepreneurship.

> Eventually I think I will find myself in the this [entrepreneurship] filed in one
> way or another, I don't know how. Hopefully when my business takes off, but I
> don't know how. I will figure it out (Gary, Senior Business Student)

> I would want to say yes [wanting to become an entrepreneur]. I want to have my
> own business in the future. I understand why I want it (Henry, Senior Business
> Student)

> I just LOVE IT. I love everything about it and I want to do it even more now
> because I know I can do it (Ben, Senior Business Student)

As stated in their statements, for those who possess a genuine interest in becoming an

entrepreneur, taking an entrepreneurship education course amplify their positive attitude

toward entrepreneurship. However, not all attitude changes were positive. There were

some adverted changes in students' attitudes before and after taking the course and no

change. In the next section, I describe some of the alternative changes in attitudes that are

neutral and negative among students who took entrepreneurship education courses.

Attitude Neutral

Not all students expressed their change in attitudes. Some students indicated their

attitudes did not change much by taking an entrepreneurship education course. Students

indicated the change was more of the understanding and comprehension of

entrepreneurship as a subject – what it takes and how it works.

I would want to [pursue entrepreneurship] but I think I am still lacking. There are still a lot of things I haven't learned and know about it. However, if more resources, yes (Lory, Junior, Business Student)

Want to learn more about entrepreneurship. Taking this class to understand more about entrepreneurship. I just want to learn about why people want to start a business other than money. Currently checking it out (Candy, Senior, Non-business Student)

In the cases of Lory and Candy, their attitudes or willingness to pursue entrepreneurship remained unchanged. However, they improved their understanding of entrepreneurship and are still exploring their options to pursue entrepreneurship. In another case shown below, Henry, a Graduate Business Student, also expressed his neutral attitude when asked, "has the course influenced any changes in your attitude toward entrepreneurship" in the interview.

Wanted to explore more about entrepreneur side, how to start a business and what other things I need to be concerned about becoming an entrepreneur (Henry, Graduate Business student)

Like Lory and Candy, Henry also responded that taking the class served as a knowledge acquisition and exploration of entrepreneurship rather than amplifying his attitude toward entrepreneurship. In the next section, I describe findings on adverse changes in students' attitudes toward entrepreneurship.

Negative Attitude

A few students indicated how taking the entrepreneurship education course demotivated their attitude toward entrepreneurship. For example, Janet is a graduate business student who wants to be an entrepreneur. She highlights how her attitude went from favorable at the initial start of the class to neutral after taking the class.

I would say after taking this course, my attitude went from positive to neutral. Like in the beginning, I was like I want to be entrepreneur, I want to start business, but like taking the class, I understand there are more difficulties and

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other stuff that I have not learned yet, so I am more on the neutral side. I am still interested, but I wouldn't start it as a goal yet (Janet, Graduate Business Student)

Janet's words together with Amber's are related in terms of how both students' initial attitudes toward entrepreneurship went from high to low after taking the class.

I think there is some sort of impact, but not major, in the beginning, my goal of becoming an entrepreneur was at the high level or top goal, but now it went down a few level. It is not at the bottom of my list, but at the middle of my list. I don't have as big of motivation right now because I want to achieve other goals and know more of myself first before I become an entrepreneur that will lead other people (Amber, Graduate Business Student)

As stated in Janet's and Amber's statements, decreased or negative attitudes toward entrepreneurship were driven by understanding the nature of entrepreneurship that requires challenges and realizing one's unpreparedness to take entrepreneurship into action. Taking entrepreneurship education courses contributed to students' self-acknowledgment of where they stand in terms of their willingness to pursue entrepreneurship. Attitude influences a person's actions and responses to challenges, incentives, and rewards. One of the most important steps taken as a business owner is to assess your attitude and become aware of how it impacts work performance, relationships with employees, and everyone else around you. The entrepreneurship education course provides experience, knowledge, and self-reflection to acknowledge students' willingness or attitude toward entrepreneurship. Education on what it is, how it processes, what it takes, and the nature of entrepreneurship was the most explored in students' lived experience, which impacted the attitude that led to students' entrepreneurial intention.

Attitudes Toward Entrepreneurship: What value does it bring?

Attitude is also one's evaluation of benefits obtained by initiating a certain behavior (Remeikiene et al., 2013). Therefore, how an individual perceives a value-added

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as a consequence of carrying out entrepreneurial behavior impacts one's attitudes and intentions toward entrepreneurship. Findings from this study also revealed how students evaluate the benefits of entrepreneurship, such as wealth, freedom, creativity, flexibility, and financial freedom influenced their willingness to pursue entrepreneurship. Below are students' statements of their perception of entrepreneurship's benefits when asked 'what and how do you define entrepreneurship.'

> The reason why I want to start my own business is, like, work for others is not flexible for my own time. And work for others, you just do the work you need to do. But like you just learn less. So, I just want to try it. Because I have time and I am young, so I just wanna try it (Sharon, Senior, Business major)

> Because I am not a person who wants to be under control. So, start my own business, I was gaining more freedom and still do many things in my spare time and my father wants me to do so. Yeah, you can go to work but you work for it. You work to earn money from it, not what you want from it. But start my own business, it must be the business I like. It must be the business I am interested in and that is the way to improve myself (John, Junior, Non-Business major)

> Freedom, financial freedom (Frank, Junior, Business major)

> Money and self-ownership, flexibility of work, being an owner. I want to build her own company and hire people she wants to work with rather than working form someone else. Want that freedom (Gary, Senior, Business major)

> Entrepreneurship to me is bringing your own idea to life and I think more business aspect, you have to benefit from it in certain way. Whether it is a monetary or self-sufficient (Amber, Graduate student)

> I think it is starting your own business, taking risk, starting a business to generate income off of it. Yeah, I do think income is a big part of it. You are doing it to make money. Creating maybe the market or providing/inventing/innovating a product (Ben, Senior, Business major)

> Yeah I have couple friends who are entrepreneurs in different field, they work for themselves, like an artist, in entertainment, or kinda like that they are very self-sufficient, they just do their own thing and kinda get by (Mark, Senior, Non-business major)

As illustrated in the above statements, students' valuation of the benefits of entrepreneurship includes financial freedom, flexibility, creativity, and ownership of their businesses. When students evaluate the benefits associated with entrepreneurship and determine that these benefits are valuable, their attitude toward entrepreneurship is more

inclined toward pursuing entrepreneurship. Because attitude is a type of perception or belief (Fayolle & Liñan, 2014), any change in attitude influences students perceived behavioral control. Any change in students' perceptions and beliefs about entrepreneurship also changed their self-confidence. More elaboration on how attitudes and perceived behavioral control have relatively influenced students' entrepreneurial intention is further elaborated in the next section.

Subjective Norms: Your social surroundings matter to pursuing entrepreneurship

Our social surroundings influence our daily decisions and behaviors (Zhang & Cloodt, 2014). We observe how others behave and learn from the consequences of their actions to determine how we behave. Observing others in close social circles, such as family, friends, and teachers can influence how we behave and make decisions to behave in specific ways. Subjective norms refer to the perceived expectations from others that influence a user to perform a particular behavior (Ajzen, 1991). This study's findings indicated that certain social surroundings influenced students' change in the value of social norms to approve or disapprove of entrepreneurial behavior. Table 10 illustrates some factors that emerged when the social norms pattern was analyzed. Findings indicate that family background, class experience, and faculty were the top three themes under the social norms pattern. In what follows, I elaborate more on the top three influential factors and emphasize how each factor led changes to students' subjective norms.

Table 10

Social Norms

Themes on Social Norms	Total number of coded responses on SN
Family Background	**26**
Class Experience	**22**
Faculty	**14**

Family

Researchers have found that a family background in entrepreneurship is essential to pursuing entrepreneurship (Altinay, 2012). Furthermore, studies had indicated that students with prior exposure to the family business had a more significant impact on their entrepreneurial intention when they took entrepreneurship courses (Nguyen, 2018). This study's findings indicate that having indirect exposure to family entrepreneurship from childhood influences students' perception and attitudes about becoming an entrepreneur. The below statements from students' interviews reveal how they observed entrepreneurship through indirect exposure to the family business.

> I think maybe I was born with it. I think may be because my father did that, so I always hear him since kid (Kyle, Junior, Business major)

> Before attending the program, I didn't have any prior experience because I was freshmen at the time, no business classes. But because my family, they do business, so I was raised in that kind of environment. So, I wanted to become in the business field when I was little (Candy, Senior, Non-Business Student)

> Actually, my friends around me and my parents told me that if you always work for others then you will just be an employee, but if you hold like flexible time and enough money and do what you are interested in and you don't need to go to work at 9am, then you need to start your own business. And actually, I see when I was young, my father started his own business. Until now, yeah, he is really hard working and he is very tired, but he gain a lot more, I think (Janet, Graduate Student)

> My mom actually has her own business. She is always had her regular job, but on the side, she was always entrepreneurial, finding clients, pretty much doing everything. That's a big motivator for me. Yes. So when I was little, I was able to go with her. She made jewely, so she gave me a little kids jewelry and I would sell it to kids. So I guess that was part of it too, she would take me and engage me (Lauren, Non-business major)

Some of the key patterns I have discovered from the above statements reflect that indirect exposure to entrepreneurship in childhood influenced their initial entrepreneurial intention. Phrases such as "since a kid," "raised in that kind of environment," "I always hear him," "I was young," and "I was little" present their early exposure from childhood influenced their initial perception of entrepreneurship.

Regardless of prior academic background in business or exposure to entrepreneurship, students with family business backgrounds had higher initial interest, attitude, and entrepreneurial intention. Many students admitted that their interest, attitude, and perception of entrepreneurship primarily come from their prior exposure to family entrepreneurs. Students admit their family influence on their entrepreneurial intention explains the following: "Yes, my father influenced me to become an entrepreneur," "Yes, part of it is family background," and "Um, my interest in business comes from working for my dad because he works hard and I always want to make money on the side." Not only did their parents' indirect childhood exposure to entrepreneurship have an initial impact on their entrepreneurial intention, but observing their family's entrepreneurial behavior also significantly impacted their intention.

> My background on why I wanted to business is that I guess it comes down to, well, my main inspiration was my dad because he has his own business and his story is really cool, like he would tell me 'oh well, I did this without college' and I wanted to follow that steps, but he was like 'no you should go to college.' So, yeah, I just really liked the side of business like being able to have your own schedule and do your own thing and make it your own way, basically. My dad does construction.so since he was little, he dropped out of school to do a construction. And he worked for somebody else. But by the time he was 17, he had his own business and he had 20 employees working for him, so that was like, 'wow, you were able to do that at 17' it was really cool for him to tell me that. So that inspired me big time and yeah (Gary, Senior, Business major)

> Yes. My dad is probably the definition of an entrepreneur. He loved his job and career. My mom is also a risk taker, which is definitely one of characteristic of entrepreneurship, taking two kids to America after you divorce when you have no money, that's kinda of a big risk when I was in 6th

grade. So my mom has a lot on me on the courage side. She came here, so I was eventually able to make it. Financially, I am not struggling, definitely not well-off, but I am blessed to be in America compared to other countries, I've made my way through college (Ben, Senior, Business major)

Dad has been working, but he wants to open business but hasn't. he motivated me about owning your own business My dad always been working for someone else, but he wants to open his own restaurant if he has enough finances for it, and it caught my attention that who would work for someone if you can work for yourself (Lauren, Senior, Non-business major)

Students' statements above indicate that observing their family members' engagement and their direct experience with entrepreneurship contributed to the self-reflection and development of an initial drive toward entrepreneurial attitude and intention. For example, a senior business major, Gary, mentioned, "well, my main inspiration was my dad because he has his own business," and Ben indicates his dad is "the definition of an entrepreneur." Gary's and Ben's statements well represent how students perceive entrepreneurship through indirect exposure from their family's business influence overall attitudes towards entrepreneurship.

On the other hand, students also exhibited a reluctance toward entrepreneurship because they had seen the hardships and challenges their families had to endure in sustaining entrepreneurship. Although most individuals are pulled into entrepreneurial behaviors and start their businesses for the benefits of entrepreneurship, such as financial freedom and financial gains, others are pushed into entrepreneurship because of a lack of career or financial options.

I don't want to pursue entrepreneurship really, because I know how hard it can be. My parents really worked hard all their lives with no vacation and they are not happy. But they have to work because its their business, no one will give them money unless they work for themselves (Lauren, Senior, Non-business major)

Its hard, like really hard, and I've seen it. Not just making the money part, but managing your workers and managing your partners. I think managing part is harder because that's more complicated. Seeing my dad running his own company, well, its successful, but he had hard time because you know, you can't really control people (Lory, Junior, Business major)

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Lauren and Lory grew up observing their parents, who have been pushed to entrepreneurship to make ends meet. They have seen the hardships and challenges of entrepreneurship. Thus, their perception of entrepreneurship portrayed distinctively different from students such as Gary and Ben, who grew up in a more positive and motivating experience with their family's entrepreneurship. Regardless of either positive or negative perception a student have on entrepreneurship based on their prior exposure to entrepreneurship, it is important to note that exposure to family entrepreneurship had a significant influence on students' initial perception and attitudes on entrepreneurship.

Faculty

Research suggests that a faculty influences students' entrepreneurial intentions and career decisions (Smith & Woodworth, 2012). The findings from this study also presented the role of faculty and its impact on students' entrepreneurship education experience and their entrepreneurial intention. Below, students indicated how a faculty had been a changing agent in developing or confirming their entrepreneurial intention.

> The role of faculty for letting people know that you can start your business and own it and entrepreneurship is achievable, I think that is a huge value. Because people don't know that it exist, they don't even know it is possible. They, a lot of people know about start-ups and there is a fantasy idea of Silicon Valley, but then there is a real deal and there is stuff actually here and a lot of students don't even know that's an opportunity (Mark, Senior, Non-Business student)
>
> Yeah, it was nice. He was like 'yeah, I hope everyone has an interest to run their own businesses in the future' like that. It was very nice (Amber, Graduate Student)

Both Mark and Amber indicated the faculty role as a mediator and a person who introduces entrepreneurship as an academic concept and a career option. Faculty often guide students' academic and career paths through their teaching subjects. For

entrepreneurship education, a faculty's role is not only limited to introducing entrepreneurship as an academic subject but also as a career option for students. This differs from the conventional way how entrepreneurship education often expects students to become an entrepreneur.

The current literature on entrepreneurship education that involves the faculty's role is portrayed with the assumption that faculty should teach entrepreneurship and promote entrepreneurship among students as if all should become entrepreneurs. However, this study's findings from students' statements support that a faculty is an integral part of students' learning experience for both gaining knowledge about entrepreneurship as a subject and getting introduced to entrepreneurship as a possible career option. The difference is that there is no assumption or pressure to pursue entrepreneurship in the latter one. A faculty contributes to students' experiences, which may lead to changes in their entrepreneurial intention. Supporting evidence from this study's findings provide that faculty as an educator, or in this case, as a changing agent who makes a difference in students' entrepreneurship educational experience. Both senior business students, Ben and Henry, also recalled the faculty's importance in their entrepreneurial intention.

> I've absorbed everything he taught I was obsessed with that class. Everything he taught is so valuable with people I worked with (Ben, Senior, Business major)

> He was the reason why I took this class and why I succeeded it. He taught me everything I already knew about and didn't know about entrepreneurship and how to prepare myself to be better at it (Henry, Senior, Business major)

Another finding on faculty within a subjective norm pattern is that how a faculty portrays entrepreneurial behavior matters to students who perceive their ideas of

entrepreneurship based on how the faculty layout the concept to students. For example, Amber, a graduate student, and Candy and Sharon, both senior business majors, indicated below how a faculty's attitudes toward entrepreneurship mattered in influencing their entrepreneurial intention.

> Because it teaches the way how to do entrepreneurship, so actually it corrects me. I think it is common sense, but like, yeah, it's not changes it, but improve it. To make it more comprehensive (Amber, Graduate student)

> The professor was very passionate about the course. He was very passionate about teaching and he was very knowledgeable. And I liked how he talked about how each company and how they are different. He emphasized on how all these companies are different, like no two companies can be the same, or they could never start off the same (Candy, Senior, Business major)

> I think it is the guidance. I didn't know where to really start or even be an entrepreneur courses available. So someone to guide me, it was a big stepping stone (Sharon, senior, business major)

As the above students stated, the contents, curriculum, class materials, and faculty's attitude hugely impacted students' understanding of entrepreneurship, which helped to shape their decision on an entrepreneurial career. As described by Egan (1973), who argued that students' attitudes are compatible with their teachers' attitudes (p.316), faculty explained his general attitude about teaching entrepreneurship as "Basically understanding what it is and what other things and different steps are involved and then hopefully after the end of the course, they would know if this is something they want to do or pursue further or say this is not for me because definitely, entrepreneurship is not for everyone." Faculty's attitude toward teaching entrepreneurship or entrepreneurial behavior greatly influenced students' subjective norms, which led to changes in their overall entrepreneurial intention.

Friends and Classmates

Aside from direct and indirect influence from their family and faculty who impacted their entrepreneurial intention, other social circles, such as close friends and classmates, also influenced as a social norm factor. By observing how their close friends and classmates perceive and engage in entrepreneurial behaviors, students exhibited their perceptions and changes in entrepreneurial intention. Most of the time, friends and classmates promoted students' initial attitudes, perceptions, and motivation toward entrepreneurial intentions. As a result, the initial level of entrepreneurial intention before taking an entrepreneurship course varied depending on each student's social interaction with friends and classmates with entrepreneurial backgrounds. However, as students go through their entrepreneurship education course, social interaction with their classmates continues to impact students' entrepreneurial intentions and decisions to pursue entrepreneurship. For example, below statements from Abby, a senior business major, and Amber, a graduate student, both talked about varying degrees of the initial level of entrepreneurial intention. However, they had a change in intentions after taking the entrepreneurship education course.

> I was actually a STEM major, but it was not until when I met couple of friends who told me that I would be perfect for business, and then I rethought my decision (Abby, Senior, Business major)

> I think I can mention two people here. One is my best friend, whose name is Joy and actually Joy started this business earlier than me with others, but one of her coworkers because they didn't really understand about this role-play game, so they just like gave up. Yeah, so after that, she asked me 'do you want to join' because we've been playing this game 4-5 years already. So we already knew it very much and we like it. So, that is one of motivation for me and another is my boyfriend actually, he has his own vapor shop in California, los angels. So like he is hard working, too, he is more like my father, but like, his time is more flexible and he get it rights in the company and yeah, that is business life I want. Because if I choose this MBA program, that is the reason why I want to do something different with others (Amber, Graduate Student)

As illustrated in the above statements, students' initial experience with indirect exposure to entrepreneurship through their social interaction with friends and classmates prior to taking the course shaped their initial interest, motivation, and attitude toward pursuing entrepreneurship. Students were motivated by observing their friends or classmates engaging in entrepreneurship. They observe fellow entrepreneurs who are socially closely connected motivated students' initial attitude and perception about entrepreneurship and influenced a deciding factor for students to pursue engaging in entrepreneurial behaviors.

Another example of how friends and social surroundings influenced a student's entrepreneurial intention was illustrated by a statement from one of the interview participants. Maryl, a senior business student, expressed how she was motivated by seeing others in her social circle engaging in entrepreneurship.

> Because during Covid I was seeing all these small businesses around me by people around my age and popping up. That showed me how entrepreneurship was growing between my age group, like people would start their own businesses and they were making a lot of money out of very fast rate. I don't know how its going now, but back then (during covid), it was just like it was very popular. And during classmates, we had a lot of interactions, like we talked about different companies we heard about or knew about and it seems like a lot of students or my peers they had about the same knowledges about I had which was pretty exciting (Maryl, Senior, Business major).

Maryl's statement indicated that exposure to an entrepreneurial environment where students get exposed to entrepreneurs around them and share entrepreneurial interests influenced her perception of entrepreneurship. An environment where entrepreneurship is encouraged and accepted also contributed to students' subjective norms and perceptions of entrepreneurship. In this surrounding environment, entrepreneurship is promoted and helps students to be more accepting of following the observed behavior in entrepreneurship and amplify their interest and attitude toward entrepreneurship.

Social interaction with classmates also influenced students' entrepreneurial intention regardless of their prior exposure to entrepreneurship and as an integral part of their learning experience from a class. For example, below students' responses indicate how students perceived social interaction in class as a part of a learning experience.

> Actually, I forgot the points, but all I know is that entrepreneurship is actually what I learned is more than his points what he taught, but communication and dealing with different people and social skills. Because classmates around me, they are more likely they are gonna do business and marketing in the future, so its like social skills : So you've learned from like-minded potential entrepreneurs and I was able to do that in class (Frank, Junior, Business major).
> Because if you want to be an entrepreneur, you have to deal with different people. You need to deal with different religion, different country people. Social interaction such as interaction with my classmates and the professor have contributed my perception toward entrepreneurship (Amber, Graduate student)

> Teammates have been influential in pursue of entrepreneurship within the classroom (Cara, Graduate Student)

> I liked the social interactions we had in class, like how you had to participate and share your thoughts like when the professor let us watch the Podcast. It opened my mind that there are different opinions than I perceive by others (Henry, Senior, Business major)

As illustrated in the above students' responses, students learned communication and social skills, which they perceived as one of the most important traits to have as an entrepreneur and to engage in entrepreneurship. This learning experience from entrepreneurship education replicated a social factor that stimulated students' decision to pursue an entrepreneurial career (Sundari, 2014). A student who mentioned "learned from like-minded potential entrepreneurs" indicated that being in a social environment with people who share a common consensus and perception toward entrepreneurship contributed to a student's entrepreneurial intention. Social circles consisting of your close friends and classmates can significantly impact your perception and foster behavior that simulates what you have observed from your group of friends and classmates (Sundari, 2014). In this case, the findings suggest that friends and classmates can influence a

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student's entrepreneurial perception and promote entrepreneurial behaviors by observing others who engage in entrepreneurship.

Social interactions and educational experience also contributed as components that impacted students' overall changes in their subjective norms, eventually leading to changes in their entrepreneurial intention. The findings not only support TPB's intention model by supporting how subjective norms leads to changes in entrepreneurial intention but also support the assertion that social and cultural factors affect an individual's value of entrepreneurship (Shapero & Sokol, 1982). Moreover, the findings from this study also indicated how students perceive social interaction, such as with faculty and classmates, as an important part of their educational learning experience. In the next section, I address the last piece of TPB's intention antecedent: Perceived behavioral control.

Perceived Behavioral Control: Self-confidence matters in pursuing entrepreneurship

Perceived behavioral control (PBC) refers to the belief in one's ability and confidence to carry on corresponding behavior (Colman et al., 2019). PBC plays a vital part in Ajzen's TPB in assessing entrepreneurial intention. This study's findings indicate that entrepreneurship education experiences heavily influenced students' self-efficacy and belief in one's capability to carry out entrepreneurship, which led to changes in their entrepreneurial intention. Table 11 illustrates the top three factors influencing students' PBC based on their responses.

Table 11

Perceived Behavioral Control Factors

Themes on Perceived Behavioral Control	Total number of coded responses on PBC
Education	**30**
Class Experience	**18**
EI Increased	**16**

PBC has both internal and external factors of self-efficacy (Armitage & Conner, 2001; Kraft et al., 2005). Internally, self-efficacy reflects one's perception of the difficulty or ease of engaging in a particular behavior through knowledge and skills. Externally, it reflects one's self-acknowledgments on the readiness of his or her own with available resources, opportunities, potential threats, risks, and barriers (Ajzen, 2002; Courneya et al., 2006; Kraft et al., 2005; Schlaegel & Koeing, 2014). This section's findings indicate that PBC had internal and external elements that constituted PBC. Furthermore, the findings supported evidence that internal factors influenced one's recognition of difficulty in entrepreneurship, and external factors made students to self-reflect on their confidence to carry out entrepreneurship.

Internal factors

Findings indicated that internal factors such as knowledge and skills acquired from a class influence students' belief in the difficulty of acting. Through acquired knowledge and skills, students perceive the level of difficulty or ease in carrying out entrepreneurship. As illustrated in below students' statements, the perceived difficulty level influenced their willingness to seek an entrepreneurial career.

But for me, I gained the (previous entrepreneurial experience) and take this course, so I think I have two things combined – like the knowledge from the book, lectures and knowledge from experience. So I can combine this two things to start my own business. Its like knowledge is supportive (Cara, Graduate student)

After taking the course, entrepreneurship is little less scary because a lot of stories we heard about, they started from a very small ideas and they branched it out. It seemed so easy. It was hard, but it sound a lot more possible now than before taking the class (Candy, Senior, Non Business major)

Throughout the time, we were constantly challenged. New ideas, new ways of thinking, different ideas, new concepts, different point of views on how to do business, how to lead, how to think about your marketing, all those essential things to run a business. It was a complete set of mindsets. The business courses I took and actual stuff I learned in the workplace, those challenges are the ones that make me think about what this could be and how to run a business. Yeah that was a big challenge, but those experiences got me more confident about what I am doing (Patrick, Senior, Non-business major)

As indicated in students' statements, gained knowledge and acquired skills through entrepreneurship education provided students with self-efficacy and influenced their entrepreneurial intention moving forward. Nuances such as "supportive" and "less scary" from Caran and Candy also give evidences how students interpreted knowledge gained through education had impact on their PBC. Therefore, education and knowledge mainly play a vital part in students' development of PBC. Furthermore, through gained knowledge, students improved their perception and realized their comfort level of difficulty with carrying out entrepreneurship independently.

External factors

Realizing and assessing available resources, opportunities, potential threats, risks, and barriers also played an integral part in students' PBC and self-confidence to promote entrepreneurial intention and enact entrepreneurship. Besides gaining overall confidence in carrying out entrepreneurship, students also confirmed where they stand regarding readiness to carry out entrepreneurship. For example, a junior business major, Frank,

expressed how taking a class allowed him to reflect on how well his personality fits with entrepreneurial traits.

> From what I have been taking from it, it has been reinforcing the idea of me wanting to go into entrepreneurship. Its like some of the power point presentations is like, oh yeah, you gotta understand what are the qualities or traits of entrepreneur and as he was going through it and I was checking myself and I am like 'I can see it, I have these traits, all right, cool, just making sure.' I just remember him going thru the traits and that was a big one. Yeah, that one, every time he said a new trait, I was like, 'yeah, you do need that and I do have it.' ok, so its more like a point of realization, like a checkpoint (Frank, Junior, Business major)

Like Frank, other students also indicated self-reflection on their entrepreneurial readiness.

> Yes, it just gone up with it. Yeah because before, again, I couldn't see myself doing a business by myself or anything, but with his examples we are going thru, it just showing how having a partner or stuff you can do to improve your chances to become successful with entrepreneurship, so it is giving me more confidence going into it (Henry, Senior, Business major)

> I have acquired a skill, right? And now I feel like I have all the knowledge to start my own business online and just have it automated and manage it myself (Gary, Senior, Business major)

> My confidence level before taking this course is around 6 or 5 neutral in the middle, after taking this course, there is not a lot of improvements, but around 6, 7 or 8 to be honest, I would want to, but I feel like I am still lacking and I can't start entrepreneurship now. I think there are still a lot in business that I have not learned about yet, but when I have the resources in the future, I would like to start my own business (Lory, Junior, Business major)

The above students' statements support that their entrepreneurship education experience positively impacted their self-efficacy and confidence level. In addition, students indicated that the class experience gave them a sense of reality check to reflect on their ability to carry out entrepreneurship by assessing their available resources and challenges and hardships while assessing their belief in self-confidence to carry out entrepreneurial behavior.

Not all students' PBC led to positive results in students' entrepreneurial intentions. It was also crucial for students to realize their lack of confidence or decreased entrepreneurial intention. Students realized entrepreneurship's hardships and challenging realities and departed from pursuing entrepreneurship. The below statements from

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students illustrate how students realized their lack of interest, readiness, and confidence made them less likely to pursue entrepreneurship.

> I would say in this exact moment, I say I am little negative towards it. Only because I know there is a lot of risk with it. But at the same time, and this is going to be very contradictory answer, bu I am also very positive about it because that's the direction I would go. At the same time, I am keeping an arms length, try not to go ahead of myself and get myself involved I am not quiet not ready for it (Lory, Senior, Non-business major)

In the case of Lory, it helped her with a realization of self-reflection on her readiness to become an entrepreneur and where she stands helped her decide to pursue entrepreneurship.

> It would be my lack of experience. If I want to start a business and be an entrepreneur, I would, but right now, but if you give me a chance to become an entrepreneur, I would not know where to begin or people I need and what kinda of business I need to start, yet. (Candy, Senior, Non-business major).

> I think there is some sort of impact, but not major, in the beginning, my goal of becoming an entrepreneur was at the high level or top goal, but now it went down a few level. It is not at the bottom of my list, but at the middle of my list. I don't have as big of motivation right now because I want to achieve other goals and know more of myself first before I am ready to become an entrepreneur that will lead other people (Janet, Graduate student).

Students such as Candy and Janet contested their current lack of skills and knowledge and realized insufficient knowledge to carry out entrepreneurship. This is an important interpretation of how students reflect on their capability, acknowledge their lack of preparedness, and determine their future entrepreneurial behavior accordingly.

Theory of Planned Behavior and Entrepreneurial Intention

So far, I have described findings from the study to address how each antecedent of intention in TPB was influenced and the factors that contributed to any changes. In this section, I summarize Part I findings and address how three pillars of intention overall, as described by Ajzen's TPB, influenced students' entrepreneurial intention by answering the

second research question: How does taking the course impact, if applicable, students' attitudes, subjective norms, and perceived behavioral control toward entrepreneurship.

The findings from this study provide evidence of factors that influenced students' attitudes, subjective norms, and perceived behavioral control toward entrepreneurship by taking an entrepreneurship education course. Overall, all three pillars of TPB's intention antecedents were observed to influence students' attitudes, perceptions, beliefs, and confidence levels to pursue entrepreneurship. Table 12 illustrates students' responses based on their changes in three antecedents of intention.

Table 12

Total TPB Intention Antecedents

Themes	Total number of coded responses on TPB	Percentages of coded responses
Attitude	43	**24%**
Subjective Norm	82	**46%**
PBC	52	**29%**
Total comments of TPB	**177**	**100%**

From the table, two findings can be analyzed from this study. First, the subject norm was the most influential among the three antecedents of TPB's intention. Students' closest social circles, such as parents, family members, friends, classmates, and faculty, significantly influenced their initial perceptions and attitudes toward entrepreneurship. Not only subjective norms impacted students' initial state of entrepreneurship, but they also had an impact on changes in subjective norms throughout taking a class. What they observed from others and how others accepted and engaged in entrepreneurial activity promoted changes in students' subjective norms. The importance of social support and

social observation perceived from 'reference others' (i.e., family, friends, classmates, faculty, and mentors) shape how students perceive entrepreneurship, impact their belief toward an entrepreneurial career, and influence students' likelihood of pursuing entrepreneurship themselves (Lent et al., 1993).

Students indicated that in-class activities that required social interactions, such as communications and discussions in the classroom, made an integral part of the learning experience that contributed to their intent toward entrepreneurship.

> Take away from the course is that you have to be able to work in groups, you have to be able to take criticism and be able to help others out, develop their ideas, and then you have to be realistic with market ideas. Even if you have a great idea, it doesn't always work out because there are million things that could go wrong with the project. Just being comfortable (Mark, Senior, Non-business major)

> Actually, I forgot the points, but all I know is that entrepreneurship is actually what I learned is more than his points what he taught, but communication and dealing with different people and social skills. Because classmates around me, they are more likely they are gonna do business and marketing in the future, so its like social skills (Gary, Senior, Business major)

> Its not like a pure social, but its more like my observation of social studies around me that grew me towards that (Frank, Junior, Business major)

> I would say Yes. I liked the social interactions we had in class, like how you had to participate and share your thoughts like when the professor let us watch the Podcast. It opened my mind that there are different opinions than I perceive by others (Henry, Senior, Business major).

As students expressed above, social interaction among peers and classmates in an entrepreneurship education course was an influential factor for students to improve their social and communication skills and practice working with others which are imperative traits and skills to acquire to pursue entrepreneurship. Social interactions in the classroom provided improved communication and social skills and allowed students to experience indirectly the social realities of what entrepreneurs go through to sustain their businesses. Collaborating with others, embracing differences, and managing relations with different people are some of the everyday social aspects of an entrepreneur's business. Classroom

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experience simulated entrepreneurial challenges in managing social aspects of entrepreneurship that promoted changes in students' overall expectation of carrying out entrepreneurship.

Second, this study's findings reveal that the other two pillars of intention antecedents – attitudes and perceived behavioral control, are intertwined and correspondingly affect changes to each other. For example, when a student exhibited a positive attitude toward entrepreneurship, he or she also expressed corresponding positive changes in perceived behavioral control and increased confidence level and was more inclined toward entrepreneurship. Similarly, when a student experiences negative changes in attitude toward entrepreneurship, the student is demotivated to pursue entrepreneurship and is skeptical about his or her ability and confidence to start a business. Henry, a senior business student, expressed how his attitude has improved after taking the entrepreneurship education course and his confidence to carry out entrepreneurship.

> Yes, it (attitude) just gone up with it. Yeah because before, again, I couldn't see myself doing a business by myself or anything, but with his examples we are going thru, it just showing how having a partner or stuff you can do to improve your chances to become successful with entrepreneurship, so it is giving me more confidence (perceived behavioral control) going into it (Henry, Senior, Business major)

Henry's response is one of the findings where a student's attitude and perceived behavioral control changed, respectively. In entrepreneurship, an attitude refers to one's initial belief or perception of entrepreneurship and the practical, beneficial, and favorable consequences that come with entrepreneurship (Ajzen, 2002). Whether driven by the initial belief in entrepreneurship or the valued benefits they perceive, attitudes toward entrepreneurship change as students experience entrepreneurship education courses.

These changes also correspondingly drive changes in perceived behavioral control.

Student's willingness to take risks, improved confidence, and self-efficacy to pursue

entrepreneurship significantly get influenced, thus changing a student's entrepreneurial

intention. Another example below from students' statements further supports evidence of

how both students' attitudes and perceived behavioral control changed.

> Entrepreneurship to me is bringing your own idea to life and I think more business aspect, you have to benefit from it in certain way. Whether it is a monetary or self-sufficient. after taking the course, entrepreneurship is little less scary because a lot of stories we heard about, they started from a very small ideas and they branched it out. It seemed so easy. It was hard, but it sound a lot more possible now than before taking the class (Mary, Graduate student)

After taking the class, Mary states that entrepreneurship is now 'less scary' because she

has learned that branching out to entrepreneurship starts with a small idea, which is

feasible for her to consider. Another student, Candy, a senior non-business student, also

illustrates how taking the class made her think entrepreneurship is more possible.

> I think before taking the class, I would not start a business because I was scared and I was like 'well, I probably don't have enough money, or I don't have dedication to take these big risks. I was scared of risks. But after taking the course it seems like everyone has to take the risks. You can't really run away from the hardship of running a business. I wouldn't say I definitely want to run a business, but it's definitely possible if I have a good idea and I know what to do now (Candy, Senior, Non-business major)

Both examples from students' statements indicate how students' initial attitudes toward

entrepreneurship and their perception of benefits associated with entrepreneurship have

changed through taking an entrepreneurship education. In addition, students indicated

that educational aspects of entrepreneurship provided relatable realities for students to

give them realistic expectations and their self-assessment of confidence level to

undertake entrepreneurship.

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PART 2. The Big Question: Did EE influence Students' EI?

Many studies in entrepreneurship research have questioned whether entrepreneurship education can influence entrepreneurial intention. Scholars have argued both 'yes,' and 'no,' or even 'maybe sometimes' on the inquiry (Courneya et al., 2006; French et al., 2005; Huang & Chen, 2015; Keer, 2012; Kraft et al., 2005; Trafimow et al., 2004). In this section, I address the third research question debated in entrepreneurship education research: how has entrepreneurship education influenced students' entrepreneurial intention, and have there been any changes based on Ajzen's TPB intention antecedents.

The intention is an individual's mental state to determine their decision to act, and it varies by their willingness to enact an action (Ceresia, 2018). Thus, when assessing intention or factors that drive changes in intention, it is critical to account that intention levels and degree of intentions are subjective and vary by individuals. As indicated by several researchers, including Shapero (1975), Shapero and Sokol (1982), Bird (1988), Krueger et al. (2000), and Tkachev et al. (1996), entrepreneurial intention has a varying degree in individuals depending on their characteristics, capabilities, and experiences (Bird, 1988), and social desirability and personal confidence (Shapero, 1975). Gartner (1985) also further elaborated on the nature of a heterogeneous group of people which entrepreneurs consist of because of these varying degrees of differences in background and abilities. This heterogeneousness in people and intention being a subjective matter with varying degrees of differences makes whether entrepreneurship education as the sole factor can influence entrepreneurial intention a debatable topic (Fayolle et al., 2006;

Krueger et al., 2000). Therefore, in this study, I further explored the factors that influence

students' intention and varying degrees of entrepreneurial intention rather than

emphasizing the consequences of entrepreneurship education on any changes in

entrepreneurial intention.

If previous research (Krueger et al., 2005) focused on intention as means of

determinant decision-making to pursue entrepreneurial behavior (Fayolle, 2006;

Kolvereid, 1996), I elaborated on any changes and factors that changed a student's

attitude, subjective norms, and perceived behavior control (Ajzen, 1991) through

entrepreneurship education. Table 13 illustrates the overall findings on students'

responses regarding entrepreneurship education and its influence on their entrepreneurial

intention. Results were driven by interview questions when students were asked, "did

taking an entrepreneurship education course influence any changes in your decision to

pursue entrepreneurship." The findings presented a diverse range of responses on

students' overall assessment of their entrepreneurial intention upon completing an

entrepreneurship education course.

Table 13

Overall EE on Students' EI

Themes on EI codes	Total number of coded responses on EI	Percentages of coded responses
EI Increased	8	54%
EI Decreased	4	23%
EI Not changed	2	15%
EI Both Increase/Decrease	1	8%
Total	15	100%

About half of the students expressed that taking an entrepreneurship education course improved their entrepreneurial intention to start a business or consider an entrepreneurial career. However, about a quarter of students responded with a reverse expression stating that taking an entrepreneurship education course demoted a pursuit of entrepreneurship. Furthermore, some responses admitted a mixed result in which taking a course promoted and demoted a student's entrepreneurial intention or taking a course had minimal or no change in their decision toward entrepreneurship.

Multiple factors drove mixed results in students' entrepreneurial intentions, such as characteristics, motivations, and capabilities (Rauch & Helsinki, 2015). However, the findings indicate that entrepreneurship education – both the knowledge and the experience of entrepreneurship education- was the most influential factor in a student's entrepreneurial intention. The findings also align with research identifying entrepreneurship education influencing students' entrepreneurial intention (Rueda et al., 2015; Nabi et al., 2017). Education – the training, experience, and knowledge acquisition reform students' overall increase in self-efficacy and attitude- is the most influential element in determining students' entrepreneurial intention (Ajzen, 1991; 1994), as described in Ajzen's TPB. In the next section, I elaborate on factors that influenced changes in entrepreneurial intention based on data collected to illustrate how each factor contributed to changes.

Increased Entrepreneurial Intention

Students who exhibited an increase in entrepreneurial intention expressed that the education–knowledge acquisition has helped to shape their positive intention toward pursuing entrepreneurship. In addition, the comparison between students' first-round interviews taken at the beginning of the course with a post-interview taken at the end exhibited that students have experienced an increase in entrepreneurial intention through gained knowledge that promoted attitude and self-efficacy. Regardless of the student's academic discipline or undergraduate or graduate student status, students expressed the importance of knowledge acquisition on entrepreneurship as the most influential factor. Below are statements from Amber and Janet, graduate students, and Gary and Laurent, seniors in non-business and business majors, who shared their knowledge statements.

> I think it's the knowledge I've gained and all the hardships entrepreneurs experienced, it seems like they all started from zero. So, if I were to start now, I would also start from zero. Then a lot of them made these huge companies nationwide and international and it seems more possible. Like, knowing how to connect with people and like, before this class, I thought 'oh, you want to start a business, you need to have a lot of money to invest,' and then you meet a lot of people and your business can succeed, so now I know the process a lot better (Amber, Graduate student)
> I think before taking the class, I would not start a business because I was scared and I was like ' well, I probably don't have enough money, or I don't have dedication to take thses big risks'. I was scared of risks. But after taking the course it seems like everyone has to take the risks. You can't really run away from the hardship of running a business. I wouldn't say I definitely want to run a business, but its definitely possible if I have a good idea (Lauren, Senior, Non-Business major)
>
> The knowledge. The class really showed me how to be an entrepreneur, like the actual how to start a business. It gave me all of the steps I needed to start the business. Its all about the details and who you know and those things are my job and my responsibility, but its like I got the framework how different people can start businesses depending on what kind of company it is. Kind of like a roadmap. That made it a lot more helpful. (Gary, Senior, Business major)
>
> But for me, I gained the (previous entrepreneurial experience) and take this course, so I think I have two things combined – like the knowledge from the book, lectures and knowledge from experience. So I can combine this two things to start my own business. Its like knowledge is supportive (Janet, Graduate student)

As illustrated in the above statements, gaining knowledge through entrepreneurship education courses mainly contributed to students' attitudes and perceived behavioral control. This result was not a surprise because of previous findings and analysis from the earlier section of this chapter on attitude and perceived behavioral control. In the earlier section of the chapter, I demonstrated how attitude and perceived behavioral control elements often correspond to each other. Similarly, in the EE and EI analysis findings, attitude and perceived behavioral control changed when students gained knowledge through education.

Although students were a heterogeneous group based on personality traits, capabilities, previous exposure to entrepreneurship, academic standing and discipline, and family and friend background, students have improved attitudes and self-efficacy towards entrepreneurship through gained knowledge from a class. Frank, Ben, and Candy indicated how they are confident in carrying out entrepreneurship because of what they have learned from the entrepreneurship education class.

> Yes, it just gone up with it. Yeah because before, again, I couldn't see myself doing a business by myself or anything, but with his examples we are going thru, it just showing how having a partner or stuff you can do to improve your chances to become successful with entrepreneurship, so it is giving me more confidence going into it (Frank, Junior, Business major)

> I have acquired a skill, right? And now I feel like I have all the knowledge to start my own business online and just have it automated and manage it myself (Ben, Senior, Business major)

> I think being an entrepreneur as a career is little scarier. There is a lot more, well, may be its nice being a CEO, having that much money and people work for me and I just lounge around doing nothing, but I think its little scary and I don't know if I have enough to run my company right now. after taking the course, entrepreneurship is little less scary because a lot of stories we heard about, they started from a very small ideas and they branched it out. It seemed so easy. It was hard, but it sound a lot more possible now then before taking the class (Candy, Senior, Non-business)

As the above students mentioned, gained knowledge has given them the confidence to pursue entrepreneurship. However, it also provided a simulated experience of being an entrepreneur through social interaction among peers and class activities that contributed to students' entrepreneurial intention by impacting their subjective norms. Students below, like Mark, a senior non-business major, and Sharon, a senior business major, communicating and discussing with classmates contributed to changes in their perception of entrepreneurship. When they were asked an interview question on factors that influenced their entrepreneurial education experience, both responded the following:

> Because it was cool to see how other people work when I don't have as much as hands-on and I am not as involved. taking a backseat and not having too much effort into it was interesting. I guess I am used to one-person coming up with all the ideas and all the follow-thru. Seeing how that happens in a team, that was really nice. take away from the course is that you have to be able to work in groups, you have to be able to take criticism and be able to help others out, develop their ideas, and then you have to be realistic with market ideas. Even if you have a great idea, it doesn't always work out because there are million things that could go wrong with the project. But you have people to work with................Yes, it (entrepreneurial intention) has gone up with this class (Mark, Senior, Non-business major)

> The engagement part. The engagement part is the best. The group engagement is so and so its more like social thing and making friends who are different, but he (instructor) also makes focus to presenting slides and managing the project together as a team which is important for entrepreneur to work together with different people (Sharon, Senior, Business major)

Mark stressed that his experience working with others gave him a new perspective and a chance to observe how others work together. He also perceived this social interaction experience as mimicking an actual situation of an entrepreneur's challenge that he or she needs to face, which was a good takeaway from the class for him to consider entrepreneurship. Sharon also indicated that engagement with classmates was a factor that made a difference in her entrepreneurship education experience.

Aside from social interactions in the classroom, indirectly observing entrepreneurs and their chronicles of entrepreneurship also promoted students'

perceptions and attitudes toward entrepreneurship. For example, Lauren, a senior non-business major, and Lory, a junior business major, expressed that learning stories of entrepreneurs on how they have built successful entrepreneurship and overcame hardships helped to understand the nature of entrepreneurship better and relate to entrepreneurs and what they go through.

> Then I think the podcast from the CEOs, like the interviews, that helped a lot. Like, it made them seem more relatable to us (Lauren, Senior, Non-business major)
> Watching interviews on podcast was helpful to understand what they did and how they came with ideas. They started from nothing and was able to build a business like a real person, in their stories, I was able to relate to them, like if they did it from zero, then may be its possible for me, too (Lory, Junior, Business major)

In the case of Lauren and Lory, the 'learning by observing' experience of seeing other entrepreneurs engage in entrepreneurship promoted their understanding of entrepreneurship, providing evidence to support how social norms influence students' intentions. Students' subjective norm was also highly impacted by taking entrepreneurship education courses. Social interaction through group activities and observing other entrepreneurs, such as podcasts and CEO interviews, students were motivated and more inclined to positive perceptions toward entrepreneurship.

Decreased in Entrepreneurial Intention

The findings also indicated that entrepreneurship education could revert students' entrepreneurial intention for the same influential factor that promoted entrepreneurial intention: gained knowledge. In cases when students increased their entrepreneurial intention, gained knowledge and acquired experience through entrepreneurship education courses gave them a sense of improved self-efficacy. As a result, students were more

confident and positive toward engaging in entrepreneurship. However, in some cases, students were reluctant to engage in entrepreneurship after taking a course because they realized the hardship and challenges and recognized their insufficient knowledge and preparedness to carry out entrepreneurship. Below, students confessed how they have realized some of the challenges and hardships facing entrepreneurship and decided not to pursue it.

> I would want to, but think still lacking. There are still a lot of things I haven't learned and know about it. However, if more resources, yes (Lauren, Junior, Non-business)

> I still have that (interest to become entrepreneur), but I have that not as a priority or be a career starter but when I am ready financially and later I want to start a business (Cara, Graduate student)

> I would say after taking this course, my attitude went from positive to neutral. Like in the beginning, I was like I want to be entrepreneur, I want to start business, but like taking the class, I understand there are more difficulties and other stuff that I have not learned yet, so I am more on the neutral side. I am still interested, but I wouldn't start it as a goal yet (Janet, Graduate student)

> To be honest, I would want to, but I feel like I am still lacking and I can't start entrepreneurship now. I think there are still a lot in business that I have not learned about yet, but when I have the resources in the future, I would like to start my own business (Lory, Junior, Business major)

As the above students indicated, students were able to have a self-reflection based on knowledge gained from entrepreneurship education. They assessed their current state on where they stand in terms of preparedness to start a business. Knowing their lack of knowledge, capacity, or a need for more knowledge was imperative for students to determine their short-term and long-term plan to pursue entrepreneurship. An interesting finding was that students who expressed their decrease in entrepreneurial intention after taking a course admitted and stressed a 'timeline' of their current entrepreneurial intention. Most students who expressed decreased entrepreneurial intention stated 'not now' when addressing their timeline of entrepreneurial initiative despite their decreased entrepreneurial intention. This may indicate that their decision not to pursue

entrepreneurship is short-term and temporary, and their intention to engage in entrepreneurship may come in the long term. More on this finding on changes in a student's short-term and long-term entrepreneurial intention, I address further in the Recommended Research section in Chapter 5.

No change or Two-Way Changes in Entrepreneurial Intention

Findings also indicated neutral or reciprocal changes in students' entrepreneurial intentions. First, a collateral result occurred when a student's attitude and PBC pointed in a different direction. For example, in the case of Candy, a senior non-business major, she felt both demotivated and motivated about entrepreneurship at the same time after taking a class.

> I would say in this exact moment, I say I am little negative towards it. Only because I know there is a lot of risk with it now [after taking the class]. But at the same time, and this is going to be very contradictory answer, but I am also very positive about it because that's the direction I would go. At the same time, I am keeping an arm's length, try not to go ahead of myself now and get myself involved I am not quiet not ready for it (Candy, Senior, Non-business)

Cindy's response is good evidence of support, showing how entrepreneurship education can influence students' intention in both ways. Her initial intention has gone down because of the knowledge she has gained from a class that taught her what entrepreneurship entails. She is now reluctant to engage in entrepreneurship due to her lack of preparedness. However, at the same time, she feels motivated to pursue entrepreneurship, and her entrepreneurial intention has been extended to the future term. Although she does not know when to pull the trigger and engage in entrepreneurship, her entrepreneurial intention remains positive. As shown in Candy's case, reciprocal results

can occur in students' entrepreneurial intentions through the knowledge students have gained.

On reciprocal changes in students' entrepreneurial intention, a faculty elaborated as below:

> Right, it can go both ways. So, they can say 'oh wow, this is really interesting, something I always had many ideas in my mind but now I know what to do to innovate or create something new or useful for people/customers" so that gives them more confident or belief in what they can do. Also, actually we talk about challenges. Not only the fancy part like creating something new, known nationally or internationally leading. But, we also talk a lot about challenges during the process of creating business; the stress, the employees, co-founders can be very challenge. Or most common ones are rejection. You need to get used to it. Investors may say 'oh no,' so constantly getting rejected. I think those are important to see ' oh I don't mind getting rejected if you don't believe in my ideas,' that kind of can boost their confidence. In a way they(students) know what potential challenges and difficulties they face and they could help them (Andrew, Business faculty)

As illustrated in a faculty's response, students learn both shades of entrepreneurship: the good side and the bad. Through entrepreneurship education, students learn the benefits entrepreneurship bring and challenges they would face. Realizing the both sides of entrepreneurship help students to consider whether entrepreneurship is a plausible career option for them to pursue.

No change in entrepreneurial intention after taking an entrepreneurship education course occurred when a student had a very high or low initial entrepreneurial intention. In addition, when a student had a high degree of direct or indirect entrepreneurial exposure and had their own operating business already before taking the course, students' entrepreneurial intention did not change much. In both cases, entrepreneurship education only reaffirmed their initial entrepreneurial intention and did not make any drastic changes or shift their decision to pursue entrepreneurship. Below is a narrative interview

extract from a student who exhibited a very high initial entrepreneurial intention and

described his attitude and perception of entrepreneurship

> Thing that excites you, depends on what it is, but to me, it's just an entrepreneurship, like I just like starting business, bringing people together and execute it. Don't get me wrong, it's hard as shit. Some of the days I am just like, why am I doing this stuff and let this guy torture? But, I still love it, it's like a curse and a blessing to be stressed. But I think just either you like it or don't. Like some people like basketball, music, or accounting. For me, its entrepreneurship. I would say just I just like it, that's the best I would say it. I don't have any answers to it, I just enjoy it. I just love it. It gets really hard, sometimes I wanna quit, there is anxiety, but it has to be hard to be worthied (Ben, Senior, Business major)

> From what I have been taking from it, it has been reinforcing the idea of me wanting to go into entrepreneurship. Its like some of the power point presentations is like, oh yeah, you gotta understand what are the qualities or traits of entrepreneur and as he was going through it and I was checking myself and I am like 'I can see it, I have these traits, all right, cool, just making sure (Frank, Junior, Business major)

The above students exhibited a high level of attitude toward entrepreneurship. They

acknowledged the challenges and hardships that come with entrepreneurship which did

not make any alternative decision changes on his part. On the contrary, a different student

exhibited a reverted response; "I grew up seeing my father suffering with stress and

always working. I think it is hard to own your business and it is easier to be an employee.

I think I rather want to be an employee and be easier" (Lauren, Senior, Non-business

major). In both case findings, entrepreneurship education played a vital role for students

to self-reflect to realize their lack of knowledge and skills to pursue entrepreneurship or

reaffirm their initial attitude and entrepreneurial intention.

Solving the unsolved mystery: So, what does EE do?

Education and its components such as knowledge and training can influence the

decision to pursue a specific career (Nelson & Winter, 1977). This study's findings

provided evidence that entrepreneurship education influences students' entrepreneurial

intentions, which can make students inclined toward an entrepreneurial career. The

knowledge taught that is associated with entrepreneurial skills that can promote students'

attitudes and confidence to run their businesses and engage in entrepreneurial behavior

(Kuratko, 2005; Nabi et al., 2017; Piperopoulos & Dimov, 2015). Many studies were

conducted to assess the impact of entrepreneurship education on growing entrepreneurial

intention (Kuratko, 2005, 2005; Fayollet et al., 2006; Li & Wu, 2019). Scholars have

argued that entrepreneurial behavior can be taught, and intention can be amplified

through learning (Katz, 2003). However, entrepreneurship education research should

further encompass the critical role that entrepreneurship education plays beyond its

influence solely on whether it increases or decrease entrepreneurial intention.

The findings in my study have illustrated the role entrepreneurship education

plays in students' learning experience and provided evidence of how students benefit

from their learning experience. Other scholars also have argued that the main role of

entrepreneurship education should serve as a mediator to increase entrepreneurship

awareness among students and provide opportunities and exposure to entrepreneurship,

so they can consider and determine if it is a practical career choice for them (Jones &

Malay, 2011). On entrepreneurship education, a faculty who taught an entrepreneurship

course for this study shared his view:

> Right, the introduction course is so basically the most common goal is what is entrepreneurship
> and what is different steps as I've mentioned earlier. Basically, understanding what it is and what
> other things and different steps are involved and then hopefully after end of the course, they would
> know if this is something they want to do or pursue further or say this is not for me, because
> definitely entrepreneurship is not for everyone (Andres, Business faculty)

His view aligns with this study's findings and summarizes a potential answer to the most

debatable question in entrepreneurship education research on its effectiveness in growing

entrepreneurial intention. Entrepreneurship education should serve as a tool for students

to get a general understanding of what it consists of and what it takes, so they can reflect

on their attitude, subjective norm, and perceived behavioral control as described in

Ajzen's TPB intention model to determine whether they want to pursue entrepreneurial

behavior. Education is the main driver as it provides knowledge, skills, and training

associated with entrepreneurship for students to indirectly experience and gets introduced

to entrepreneurship. In terms of educational contents and curriculum goals, a faculty

responded:

> I see that there are three components or three legs to it. First, most important part is a theory and a concept. So, how do basically people understand entrepreneurship so far. Like in business school, people do innovation and entrepreneurship basically look into what entrepreneurial behavior and success, so what other different concepts are involved here. And then, the other components are realizing cases, they get assignment to understand successful entrepreneurs and how they have started and have ideas build on that and challenges they encountered, so basically what is it like to be their own world and what they can learn from that. And the last piece would be the projects they work on. So, that is a hands-on experiential learning to apply the concept what they've learned from entrepreneurs into kind of creating their own business ideas and presentation with their teams. That's the way to mimic the process. Now we don't have all the time to read and limited time to work on that, but that is kind of the idea is that basically components to give well-arounded understanding of what are involved (Andrew, Business faculty)

His description of entrepreneurship education, what it entails, and what it provides

supports TPB's three pillars of intention. The 'Understanding' component impacts

students' attitudes; 'realizing cases' impacts students' subjective norms; and 'exercising

hands-on experiential learning' provides self-assessment that influences students'

perceived behavioral control. Findings from students' statements also support that

knowledge and experience from entrepreneurship education courses contributed to

changes in their attitude, subjective norms, and self-efficacy to determine entrepreneurial

career choices. From gathered data analysis from students' interviews, the one common

theme that answered the overall research question is 'reinforcement' on perception,

attitude, and self-acknowledgment through gained knowledge and acquired skills through entrepreneurship education courses.

> From what I have been taking from it, it has been reinforcing the idea of me wanting to go into entrepreneurship. Its like some of the power point presentations is like, oh yeah, you gotta understand what are the qualities or traits of entrepreneur and as he was going through it and I was checking myself and I am like 'I can see it, I have these traits, all right, cool, just making sure.'(Henry, Senior, Business major)
> Now I understand what entrepreneurship is and process and challenges they face. I think I am more prepared to be an entrepreneur than before (Abby, Senior, Business major)

Entrepreneurship education is the main driver of students' entrepreneurial intention development through gained knowledge, acquired skills, and experience from the classroom. Despite the nature of heterogeneousness in students, such as attitude, capabilities, prior exposure to entrepreneurship, and family background that makes it harder to assess whether entrepreneurship education had any influence on their entrepreneurial intention, this study's findings highlight that entrepreneurship education is imperative to students' development of intention and is the main driver for both existing, continuing, potential, and nascent entrepreneurs in the classroom.

In the next chapter, I address the study's conclusions, the implications this study on entrepreneurship education research, and its significance. Furthermore, I also address the study's challenges and limitations and suggest future studies in the body of entrepreneurship research literature.

CHAPTER 5

CONCLUSIONS

In the present study, I investigated how students perceived entrepreneurship education courses and the factors that drive any changes in their entrepreneurial intention. Furthermore, I explored to what extent an entrepreneurship education course influenced students' entrepreneurial intentions. Acknowledging the importance of entrepreneurship in promoting economic growth, jobs, and agile workers who can be self-employed led universities to offer entrepreneurship education to promote students to be entrepreneurs (Charney et al., 2003). As more universities offer entrepreneurship education, more scholars grew interested in investigating the effectiveness of entrepreneurship education using students' entrepreneurial intentions.

However, current literature needs students' narratives from their experiences in entrepreneurship education courses. Some of the subjects missing in current entrepreneurship education literature include factors that influence student's entrepreneurial intention, including: (1) students' attitudes (how they feel about entrepreneurship), (2) subjective norms (how they think of others that pursue entrepreneurship); and, (3) perceived behavioral control (how confident they are pursuing entrepreneurship). In addition, a qualitative study incorporating students' narrative descriptions is rarely studied in entrepreneurship education research. Instead, many studies are quantitative, addressing statistical implications of the effectiveness of entrepreneurship education on positive or negative changes in students' entrepreneurial intentions. The problem with quantitative findings is the lack of student involvement and

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their educational narratives. To fill in the missing gaps, this study analyzed narrative descriptions from students' lived experiences of entrepreneurship education based on three antecedents of intention (Ajzen, 1991). The findings showed factors influencing changes in each intention antecedent through entrepreneurship education.

In the findings, I emphasized the narrative of students' responses to further elaborate factors that influence their intentions that emerged from data collection through interviews. First, students' responses based on their lived experience from an entrepreneurship education course provided insight into a common theme that emerged around TPB's intention antecedents. Second, I observed how each factor reappeared among interview participants as a common theme. Third, students acknowledged changes in their attitude, subjective norms, and perceived behavioral control that led to entrepreneurial intention using a pattern-matching analysis. Finally, I incorporated the TPB (Ajzen, 1991) as a guiding theory to explore patterns that emerge from students' responses that correspond to theoretical patterns of TPB's intention antecedents to explore changes in students' entrepreneurial intention. In this chapter, I elaborate on some of the key findings and implications of the study, address limitations and challenges, and suggest future studies with final remarks.

Summary of the Findings

The present study's findings can be summarized in two parts: First, how three antecedents of intention, as described by Ajzen (1991), influence students' entrepreneurial intention and which factors drive changes in each antecedent of intention.

Second, to what extent does entrepreneurship education influence any changes in students' entrepreneurial intention.

Social Norms Matters the Most

In this study's findings, all three antecedents of intention – attitudes, social norms, and perceived behavioral control, were found to influence students' entrepreneurial intention. From students' narrative interviews, I analyzed pattern-matching themes to explore which antecedent of intention influenced students' changes in their entrepreneurial intention. The overall findings indicated that subject norm was the most influential on students' overall entrepreneurial intention. Social support and social observation perceived from 'reference others' (i.e., family, friends, classmates, faculty, and mentors) shape how students perceive entrepreneurship, impact their belief toward an entrepreneurial career, and influence students' likelihood of pursuing entrepreneurship themselves.

From earlier section, students such as Gary, Kyle, Candy, and Janet have indicated how their family background in entrepreneurship had a big impact on their perception of entrepreneurship. While Amber and Sharon mentioned the importance of faculty in guiding them to entrepreneurship, Abby, Amber, and Maryl stated how observing others' engagement in entrepreneurship and interacting in entrepreneurship education class promoted their intentions. Students' observation on how others exhibited and engaged in entrepreneurial activities promoted changes in students' perception of entrepreneurship. Therefore, being in a classroom setting and interacting with colleagues who have indirect and direct experience or interest in entrepreneurship had the most

significant impact on students' overall changes in attitudes, social norms, and perceived behavioral control.

Another interesting finding from social norms was that indirect experiences (e.g., a family background of entrepreneurship, close friends owning of a business) had a more significant impact on students' changes in their entrepreneurial intention than direct entrepreneurship experience (e.g., direct ownership of a business). Students with indirect experience with entrepreneurship exhibited a more robust initial attitude and perception toward entrepreneurship than ones with prior entrepreneurship experience. Despite having direct entrepreneurship experience, they exhibited a less intense initial attitude toward entrepreneurship. For example, as illustrated in Chapter 4, Janet, who is a graduate student with previous experience in entrepreneurship, expressed her minimal change in entrepreneurial intention. She expressed how entrepreneurship education was helpful to gain more knowledge, but did not change her initial intention. However, in case of Frank who is a junior with only indirect family background in entrepreneurship exhibited stronger attitudes toward entrepreneurship. Entrepreneurship education not only helped Frank to gain knowledge on entrepreneurship, but also strongly motivated his entrepreneurial intention.

Similarly, Meryl stated how she observed there was a spike of young people around her engaging in entrepreneurship during the Covid-19 period. By observing how others around her are engaging in entrepreneurship, Meryl obtained a sense of relatability to entrepreneurship and its importance. Seeing others and observing others who are entrepreneurs made Meryl to gain interest in entrepreneurship and to develop a

perception that entrepreneurship is relatable and she also can consider to engage in entrepreneurship. This finding indicates how students reference their close social surroundings on their engagement in entrepreneurship and observed consequences from entrepreneurship influence students' entrepreneurial intention. Aside from influences from close social circles, faculty also greatly impacts students' perception of entrepreneurship.

Faculty's influence on student's entrepreneurial intention differed from other social surroundings, such as family or friends who indirectly or directly engage in entrepreneurial behaviors. Rather than playing an exemplary role of being an entrepreneur, the faculty played a vital role in introducing entrepreneurship as a subject to students and provided an opportunity to consider an entrepreneurial career as an option. Recall Mark, a senior business student, who stated that faculty helped him introduce the idea that building up a start-up is not a fantasy but an achievable goal.

Furthermore, faculty is an integral part of student's learning experience. As Ben, a senior business student, stated, faculty can "make a difference" and "a reason to pursue" a student's decision on entrepreneurship. Faculty provides a safe environment in a classroom for students to thrive or get motivated by the surroundings of a likely-minded social group who are interested or engaged in entrepreneurship. For example, class discussions that involve students to participate with classmates also have a big impact on students' learning experience that influences their entrepreneurial intention. Recall Mark, a senior business student, who usually works alone. He picked having a group discussion for a project as his most influential class experience because it provided him an

environment where he observed how others thrive with creativity, which he thought was an entrepreneurial trait. Such as Mark's case, class activities, projects, and curriculum a faculty designs indeed have a big impact on students' learning experience, thus influencing their intentions.

Double Score on Attitudes and PBC

Findings from this study indicated attitudes and perceived behavioral control correspond to each other, leading to changes in one on the other. For example, students whose attitudes changed positively toward entrepreneurship also expressed positive changes in their perceived behavioral control and vice versa. Recall that Henry, a senior business student, expressed how his positive attitude and confidence level toward entrepreneurship went up after taking an entrepreneurship education course. On the contrary, Lory, a senior non-business major, indicated she lost confidence and her attitudes toward entrepreneurship decreased. Students' attitudes changed as they took entrepreneurship education classes because of factors I described in Chapter 4 (e.g., initial attitudes, perceived benefits, class experience, and gained knowledge). These changes in students' attitudes also correspondingly drove changes in perceived behavioral control.

Changing agents: Knowledge, Self-acknowledgement, and Class experience

In entrepreneurship education research, especially in the context of entrepreneurial intention, there is an underlying assumption that entrepreneurship education often positively influences students' entrepreneurial intention, driving their

future entrepreneurial activities such as starting a business (Fayolle, 2006; Kats, 2005). However, the present study suggested that whether entrepreneurship education influences or not, students' entrepreneurial intention is subjective and cannot be contextualized for generalization. Moreover, any changes in a student's entrepreneurial intention differed by an individual. As addressed in earlier chapters, factors such as initial perception, family background, prior indirect or direct exposure to entrepreneurship, gained knowledge, self-acknowledgment, and others can contribute to a student's change in three antecedents, leading to changes in students' entrepreneurial intention. However, despite the fact that factors and influences that affected students' entrepreneurial intention may vary by individuals, three common themes that had influenced three antecedents of intention emerged from the study: knowledge gained through education, confirmation of self-acknowledgment, and class experience.

Knowledge

Students showed that gaining knowledge on entrepreneurship, such as the ways to start a business, resources needed, associated benefits and risks, success stories of entrepreneurs, and challenges of entrepreneurship, significantly influenced their entrepreneurial intention. Acquiring knowledge from entrepreneurship education courses provided students with knowledge associated with entrepreneurship that impacted changes among the three antecedents of intention. First, students' attitudes toward entrepreneurship were influenced by getting to know what entrepreneurship entails. Students expressed positive, negative, and null attitudes based on the knowledge that made them feel either motivated or demotivated to pursue entrepreneurship. Second,

social interactions students had through class settings (e.g., faculty, classmates, guest speakers, and friends) provided students with a social circumstance where many were more prone to pursuing entrepreneurship. This entrepreneurial social surrounding gave students more relevant experience in class, where they had a positive experience with entrepreneurship. To further elaborate, students' subjective norms on entrepreneurship became more positive, and students were more accepting ideas on entrepreneurship or starting a business. Lastly, gaining knowledge had the most impact on students' perceived behavioral control or self-confidence. Acquiring knowledge on entrepreneurship provided students to gain or lose self-confidence to pursue entrepreneurship. Learning about what it takes to be an entrepreneur, whatthe benefits and challenges are, and what resources are needed gave students a realistic perspective on whether they are fit to proceed with entrepreneurship. Realizing one's capacity or belief in the capacity to proceed significantly influences students' learning experience through entrepreneurship education. I further elaborate on self-confidence and self-acknowledgment through education in the next section.

Self-acknowledgment

Taking an entrepreneurship education course allowed students to self-acknowledge whether they can carry out entrepreneurship. By acquiring knowledge about entrepreneurship, students reflected on one's current capacity and available resources to acknowledge their capability and preparedness to proceed with entrepreneurship. After taking the entrepreneurship education course, some students felt much more confident about carrying out entrepreneurship than before because they learned what it entails and

determined they are fit to pursue it. In the case of Mark, Gary, and Frank, they confessed how taking a class made them realize how their traits matched with what they were learning on entrepreneur traits. On the other hand, other students felt demotivated after learning about entrepreneurship because they lacked the confidence, resources, and motivation to start their businesses. For example, Lory, Janet, and Amber indicated their decreased entrepreneurial intention because they learned what they lacked to carry out entrepreneurship. Providing knowledge to students and educating them about entrepreneurship and everything associated with pursuing it helped them determine whether they would proceed with entrepreneurship.

Class Experience

Class experiences such as class activities, projects, discussions, and contents during class enriched students' experience in entrepreneurship education, promoting their entrepreneurial intention. For example, recall a student who reflected on listening to a podcast of entrepreneurs in class and expressed that it helped the student to understand some of the challenges entrepreneurs go through. Another student, Gary, shared his class experience, which gave them a sense of reality check to reflect on his ability to carry out entrepreneurship by comparing his traits with the entrepreneur's traits taught in class. Also, many students indicated that observing how classmates perceive and engage in entrepreneurial behaviors changed entrepreneurial intention. For example, recall Mark, who usually works on his own. Taking entrepreneurship education class and his class experience on group discussions and projects taught him how others thrive on creativity as much as he does. Also, working together brings out synergy to get the job done – in

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which he indicated how that teamwork reflected entrepreneurs at work. These learning

experiences from entrepreneurship education replicated a social factor that stimulated

students' decision to pursue entrepreneurship. In the next section, I discuss some of the

implications of this study that is particular to this study's method, data analysis, findings,

and overall.

Discussions and Implications

Method

 Implications from this research findings are twofold in its contribution to both the

method and practice in entrepreneurship education. First, as entrepreneurship education

in universities surged over the last few decades, many researchers studied students'

entrepreneurial intentions associated with entrepreneurship education. However, studies

were primarily quantitative, and findings were limited to the statistical implication of

entrepreneurship education on entrepreneurial intention. The present study contributes to

the domain of entrepreneurship education research by providing a qualitative approach to

the inquiry on entrepreneurship education and its influence on student's entrepreneurial

intention, where quantitative studies are dominant. By applying a qualitative approach in

this study, I included students' narratives through interviews that provided further

elaboration on students' experiences and perceptions of entrepreneurship education

courses.

 Second, aside from methodological implications, the findings from this study also

provide qualitative findings on how students' entrepreneurial intentions progressed or

regressed and consider the factors that drove any changes in their entrepreneurial

intention throughout the course. Students' narratives were integral to understanding how students perceive the entrepreneurship education experience, which is often neglected in entrepreneurship education research. Instead, most research emphasizes the outcome of entrepreneurship education on students' entrepreneurial intention to analyze the effectiveness of entrepreneurship education. However, the present study focuses on how students perceived entrepreneurship education and factors that drive any changes in students' development or entrepreneurial intention. Therefore, this study's findings contribute to the rest of the entrepreneurship education research with its qualitative approach to the inquiry that quantitative studies have dominated.

Theory

This qualitative research expanded entrepreneurship education literature by applying Ajzen's Theory of Planned Behavior, the most profound theory used in entrepreneurship education studies and the dominant theory used in quantitative studies (Engles et al., 2008; Fayolle et al., 2006; Fayolle & Gailly, 2015; Liñan & Chen, 2007; Walker et al., 2001; Watson et al., 2014; Zemore & Ajzen, 2014) TPB has dominated quantitative studies in entrepreneurship education research, providing findings drawn from statistical implications. The qualitative studies in the current literature on entrepreneurship education applying TPB are almost non-existence. Therefore, this study, by using TPB, contributes to a current lack of literature on entrepreneurship education studies in qualitative studies, strengthens and expands the field's research in terms of diversity, and provides a qualitative perspective on entrepreneurship education and entrepreneurial intention. This study suggested that the application of TPB in qualitative

studies can also draw findings based on TPB's three antecedents of intention as it did in quantitative studies. Three antecedents of intention that predict the likelihood of an individual's future behavior, such as pursuing and engaging in entrepreneurship in this research, could also be found in the qualitative study's findings. Applying TPB as a theoretical framework in this qualitative study, I used pattern-matching analysis to explore themes that emerged from students' narrative interviews associated with each pillar of intention. In addition to breaking through the current literature where quantitative studies dominate with the use of TPB, this qualitative study contributes to the current literature by provideing additional perspectives that were omitted from previous quantitative studies.

Practice

This study contributes to the literature by providing practical perspectives on entrepreneurship education and entrepreneurial intention. Current literature emphasizes on the changes in students' entrepreneurial intention as a byproduct of entrepreneurship education. The underlying assumption in current literature that assumes changes in students' entrepreneurial intention occur from taking entrepreneurship education courses is overrated. Existing studies focus solely on changes in students' entrepreneurial intentions and expect entrepreneurship education to promote students' entrepreneurial intentions to pursue entrepreneurship.

The findings of this present study shifts the research focus from the outcome of entrepreneurship education as a result of changes in students' entrepreneurial intention to identifying factors driving any changes and impacts on students' entrepreneurial

intention. With the use of TPB's three pillars of intention, the ways in which each antecedent of intention implies any changes in students' entrepreneurial intention differentiate this study's findings from the current literature, adding practical practice to the current literature.

Findings from the present study indicate that education is the primary driver that impact changes among all three antecedents of intention that lead to students' entrepreneurial intention. As the study's findings indicate, if education is a primary determinant factor that drives changes in students' entrepreneurial intentions, universities should consider the impact entrepreneurship education has on students' entrepreneurial intentions. Other findings show that education is a primary driver for change, and faculty plays a critical role as a mediator, introducing students to entrepreneurship subjects and guiding students through entrepreneurship's academic and practical contents. This finding also is in line with previous studies in literature (Engles et al., 2008; Fayolle et al., 2006; Walker et al., 2001; Watson et al., 2014). Although methodology differs from quantitative studies, the findings from this qualitative study also drew similar findings as previousy found in the literature. Furthermore, beyond the findings that were in line with some of quantitative studies in the literature (Engles et al., 2008; Fayolle et al., 2006; Walker et al., 2001; Watson et al., 2014), the present study's findings also further elaborated how each student felt any changes in their entrepreneurial intention by examining students' narratives.

Students learn from their social surroundings, such as class environment and class experience. These findings can be applied to educational practice in universities to adopt

into their entrepreneurship education curriculum design, contents, and pedagogies. Students learn from collegues, faculty, and class experience to determine whether or not an entrepreneurial career is feasible for them. The present study implied factors that matter in students' class experience, class activities, faculty guidance, and overall impact on students' entrepreneurial intention based on attitudes, social norms, and perceived behavioral control. The impact of social factors such as faculty is well documented in the literature (Carr & Sequeira, 2007; Koe et al., 2012). Studies that have confirmed the significance of social norms on students' entrepreneurial intention (Gelderen et al., 2008; Kautonenet al., 2009; Moriano et al., 2011) explaining the importance of social norms. The findings from this study also further elaborated the importance of social norms such as from faculty and family members that impact and influence students' attitudes and perceptions on entrepreneurship that lead changes on their entrepreneurial intention. Educators and universities can take the findings from this study to educational practices to help design entrepreneurship education curricula, appoint faculty who can relate to entrepreneurship, and expand the accessibility of entrepreneurship education to broader students in different academic disciplines beyond business.

Regardless of changes in students' entrepreneurial intentions, the present study's findings indicate that entrepreneurship education is still a key to influencing students' entrepreneurial intentions. Through education, students are given the knowledge to learn about entrepreneurship, what it takes, whom it takes, and how it takes place. Furthermore, acquiring knowledge gives students a realistic sense of where they stand regarding knowledge, resources, and confidence to determine their readiness and willingness to

pursue entrepreneurship. Through education and knowledge about entrepreneurship, students can better determine whether or not they are more prone to pursue entrepreneurship as their career path. In the next section, I address some of the limitations of the present study and recommend future studies, along with final remarks.

Challenges and Limitations of the Study

The present study provides evidence of how using TPB in a qualitative study can also support findings of entrepreneurship education on students' entrepreneurial intention. Qualitative studies in entrepreneurship education on entrepreneurial intention are rare, and applying TPB is almost nonexistent. However, in using TPB, a prominently used theory when studying entrepreneurship education and entrepreneurial intention, I am confident that findings drawn from the present study are as valid as quantitative studies that applied TPB to investigate and inquire about similar research questions. Also, the present study's use of pattern matching in data analysis allows identifying factors that impacted changes in each antecedent of intention in TPB. Despite the rarity of qualitative research on the present study's topic, the findings support evidence to answer factors influencing students' entrepreneurial intention. In addition, the study contributes to entrepreneurship education research by adding students' narratives to describe factors that influenced their intention that was lacking in current literature.

Covid Era

The present study was conducted during the COVID-19 era when certain restrictions were placed on data collection. As a result, a few methodological challenges

were associated with conducting the present study. The first challenge was recruiting students through in-class announcements during the classes which were held remotely. Recruiting participants remotely over email and Zoom communication was not as effective as in-person recruiting announcements in a classroom. I recruited 15 participants who shared their narratives from their experiences when taking an entrepreneurship education course. Although the number of participants may seem small, a sample size of ten is sufficient for a case study (Creswell & Creswell; Saldana, 2006). In addition, using pattern matching to analyze collected data from participants' interviews, I identified themes that emerged consistently throughout the data analysis phase. Despite a relatively small number of participants, analyzed data were consistent, and the information collected was saturated with repeated patterns emerging from the analysis. Thus, there was no need to expand the number of participants since it is unlikely that a larger participant pool, making it less likely to make any differences in data analysis or add new information.

In the present study, additional data such as observation and documents could have been collected to add extra support to the evidence of the findings. However, due to Covid-19 restrictions, there was limited interaction in a classroom setting that allowed practical observation and document collection. For example, all class sessions were held via Zoom, and students often displayed profile pictures instead of turning on live cameras. In the in-person classroom setting, collecting valuable data, such as how students interact with the faculty, classmates, and teammates, through in-person observationis more straightforward. However, remote class observation was ineffective

and did not add any value to the study since it was minimal for me to observe class interaction over Zoom environment. Document collection was also challenging for a similar reason. However, a remote platform allowed me to arrange interviews more easily via Zoom than in-person. The easy access to arranging interviews also allowed me to conduct two consecutive interviews with each participant: one at the beginning and one at the end of the entrepreneurship education course, as addressed in previous Chapter 3. Unlike the conventional interview with students, consecutive interviews in this study provided more relevant information on students' lived experiences as interviews were conducted in real-time throughout the course.

Longitudinal Study

Studies have shown that it takes, on average, ten years for a student taking an entrepreneurship education course to pursue entrepreneurship and start their own business (Wang, 2006). Even as a longitudinal study in research, ten years is considered a more extended period (Creswell, 2018). The ten years for students to actualize their entrepreneurial activity was also why many scholars started adopting entrepreneurial intention in entrepreneurship education research instead of the actual number of immediate start-ups by students (Carpenter & Wilson, 2022). Therefore, another limitation of the present study was the short duration of the study timeframe. Each entrepreneurship education course duration was limited to one academic term semester. However, I compromised the short duration of the study by including multiple sessions of entrepreneurship education courses from both undergraduate and graduate courses in two consecutive academic semesters. Short duration but multiple entrepreneurship education

courses extended the present study by providing multiple cases for data collection from

an expanded student population since each course had a different set of students enrolled

each semester. However, an extended research timeframe could have also provided more

information on research subjects such as post-entrepreneurship education on students'

entrepreneurial intention. In the next section, I elaborate further on some recommended

future research that can be drawn as a continuum from the findings of the present study.

Recommendation for Future Studies on Entrepreneurship Education and

Entrepreneurial Intention.

One of the well-respected scholars in the domain of entrepreneurship and

entrepreneurship education research, Fayolle (2013), once mentioned, "Talking about the

future of EE is a complex exercise" (p.693). Entrepreneurship education is a complex

subject with much to be studied. Educators and administrators in entrepreneurship

education have become impassioned about student outcomes, given the surge of

entrepreneurship education offered in universities in past decades. However, current

literature still needs to explain what we mean regarding relevance, effectiveness,

inclusiveness, and coherence in teaching and practicing entrepreneurship education

(Fayolle, 2013). Therefore, future research in entrepreneurship education must move

forward with a clear objective of recognizing the complexity and heterogeneity of

audiences involved in entrepreneurship education. The audience in entrepreneurship

education is a heterogeneous group of students from different socio-demographic

backgrounds who have been exposed to indirect and direct entrepreneurship, a range of

disciplines, and a comprehensive level of motivation toward entrepreneurship.

Unfortunately, most current studies and practices of entrepreneurship education fail to address differences in audience and only provide a generalized concept of entrepreneurship education, neglecting the variety of audience groups (Fayolle, 2006, 2013). Future research in entrepreneurship education must encompass appropriate and differentiated educational objectives, contents, and teaching to serve complex audience groups in entrepreneurship education.

Another direction where the future of entrepreneurship education research can take is in the pedagogies of entrepreneurship education. It is common to find studies that address 'classroom setting' versus 'experiential' or 'learning by doing' (Carpenter & Wilson, 2022; Donaldson, 2019; Hahn e3t al., 2017). Much literature addresses the difference between the 'classroom setting' and 'experiential' teaching approaches in entrepreneurship education without clearly elaborating the two methods beyond generalization (Henry & Lewis, 2018; Katz, 2003). Some of the research inquiries, such as what we mean by 'learning by doing' or 'experiential' teaching or how that differs from the 'classroom setting' teaching method in terms of contents, student outcomes, and support from the institution, need to be explored to understand how institutions and educators can better provide an effective pedagogical method in entrepreneurship education.

Furthermore, as I have addressed in the limitation of the present study, a longitudinal study following pre-and post-entrepreneurship education is recommended. It is helpful to examine students' entrepreneurial intention as a proxy to explore their likeliness of pursuing entrepreneurship. However, a future study can improve by

implementing longitudinal studies to see if and how intention changes occur over time. In addition, following students' post-entrepreneurship in a longitudinal study can shed light on obstacles and challenges a student face when establishing entrepreneurship and offer insight into the resources needed to pursue entrepreneurship productively.

Finally, entrepreneurship education is still heavily limited within the house of business and engineering schools. To include students outside of those disciplines who are often neglected, entrepreneurship education need to expand its accessibility beyond students in business and engineering schools. For example, most entrepreneurship education courses are offered in business or engineering schools under elective classes. Although students from another discipline may take the entrepreneurship education course as an elective, such courses often need to be under-promoted. Some of the findings from this present study and others (Kautonen et al., 2015; Kuratko, 2003; Liñan & Fayolle, 2015; Lorz et al., 2013; Nabi et al., 2017) have supporting evidence that non-business students expressed higher interest and intention toward entrepreneurship after being exposed to entrepreneurship education. Still, none-business students have a higher entry barrier to entrepreneurship education. Non-business students need to be more informed about entrepreneurship education offered in universities outside of business and engineering schools. The importance of expanding availability to students with diverse academic backgrounds and disciplines can shed light for administrators to promote and support entrepreneurship through the education students can receive in universities.

Final Remarks: Education, Education, and Education

Entrepreneurship is ubiquitous and exists in our daily lives. From a lemonade stand to a multi-billion global enterprise, all businesses start with an individual or a group of entrepreneurs with a great idea, creativity, strength, and skills to build an enterprise from ground zero. I have been interested in entrepreneurship for as long as I can remember. Like some of the participants in this study who had a family background in entrepreneurship, I, too, was exposed to entrepreneurship from childhood. Growing up observing my parents running their business and everything associated with running a business, such as benefits and hardships, I take entrepreneurship as a personal subject. My perspective on entrepreneurship and initial attitude was developed watching my parents go through their business. This indirect exposure to entrepreneurship through my parents significantly impacted my perception and intention toward pursuing entrepreneurship. As time passed, I grew up studying business in college and became an entrepreneur. Although I never specifically took an entrepreneurship education, I studied business in both undergraduate and graduate studies, which helped me with foundational knowledge on creating and managing a business. However, I always wondered if it would have made any difference if I were to have taken entrepreneurship education prior to becoming an entrepreneur. The inquiry, in particular, centered my research focus in this dissertation and left me to continue as a researcher.

In addition, my career in higher education also played an important role in pursuing research on entrepreneurship education. I play three roles working, studying, and researching at a higher education institution as a staff, a student, and a researcher at a

business school in an R1 University. As I mentioned in an earlier chapter, because of the nature of the business school, entrepreneurship education is easily accessible to students. Working closely with students and educators at a business school, I became more interested in the field of entrepreneurship education and how much education helps encourage students in their future endeavors, and what ways it promotes, if at all, students to consider entrepreneurship. From there, I initiated the present study on entrepreneurship education and its influences on students' entrepreneurial intentions.

Since the birth of entrepreneurship education at Harvard in 1947, entrepreneurship education has flourished in the past few decades (Kuratko, 2003). Many scholars have studied its effectiveness, pedagogies, contents, and definitions as it grows. However, we need to pause and think about what we mean by entrepreneurship education and how we do it. We need to listen to students who are taking these entrepreneurship education classes today and ask if they would consider entrepreneurship a career option and why or why not. It is time to listen and learn from students' perspectives and how they receive the entrepreneurship education that is currently being taught. Also, we need to analyze how we can improve our practices and teaching to serve students' needs and their varieties better. Understanding how students perceive entrepreneurship education through their lived-experience narratives are imperative for scholars to improve how we teach and how we deliver education.

The present study explored how students' entrepreneurial intentions changed, if at all, by taking entrepreneurship education courses and what factors influence students' intention to pursue entrepreneurship. I adopted Ajzen's (1991) TPB and its three intention

antecedents: attitudes, subjective norms, and perceived behavioral control as a theoretical guideline and utilized pattern-matching analysis to explore themes that emerged to answer research inquiries. Through narratives of students who have shared their live-experience from an entrepreneurship education course, I identified and explored factors that drove changes in TPB's three antecedents of intention that eventually led to changes in students' entrepreneurial intention. The findings indicated that knowledge, social observation, and class experience influenced students' attitudes toward entrepreneurship, acceptance of engaging in entrepreneurial activities, and confidence to carry on entrepreneurship. Among the findings, gained knowledge and acquired information associated with entrepreneurship was a key influencing factor that most students expressed. The findings from this present study are in line with findings from the literature especially with the use of TPB used in other studies in the literature. In addition, the present study also represented students' narratives that further elaborate interpreted meanings from their experiences from entrepreneurship education that led changes in their entrepreneurial intention, which was rarely presented and studied in the current literature, which makes the study significant.

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