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TITLE:

Entrepreneurs: Born or Made?

Effects of Entrepreneurial Education on Entrepreneurial Intentions,
Entrepreneurial Self-Efficacy and Risk-Perceptions. The Case of Skape
Educational Offer.

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ABSTRACT

The purpose of this study was *first* to investigate on how participation in entrepreneurship training influence entrepreneurial intention (EI), entrepreneurial self-efficacy (ESE) and risk-perceptions of students. *Secondly*, we aimed to examine on how the role of teachers (RT) and teaching methods (TM) influence EI, ESE and risk-perceptions of students. *Third*, we aimed to check the mediating role of entrepreneurial self-efficacy on the relationship between dependent (e.g., RT & TM) and independent variable (e.g., EI and risk). The results showed that participation in an entrepreneurship course were positive and significant effect on ESE. While the effect of the courses on EI and risk-perceptions were both positive but not significant. Role of teachers and teaching methods both confirmed to have positive and significant effects on EI, ESE, and risk-perceptions. With regard to mediating role of ESE, teaching methods effect on both EI and risk were fully mediated. While role of teachers effect on EI was not mediated and effect on risk was partially mediated.

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LIST OF ABBREVIATIONS

BE – Business Education

EB – Entrepreneurial Behavior

EE – Entrepreneurship Education

EEM – Entrepreneurial Event Model

EI – Entrepreneurial Intention

EIM – Entrepreneurial Intention Model

ESE – Entrepreneurial Self-Efficacy

R – Risk

RT – Role of Teachers

SCT – Social Cognitive Theory

SE – Self – Efficacy

SEE – Short-term Entrepreneurial Education

TM – Teaching Methods

TPB – Theory of Planned Behavior

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1. INTRODUCTION

“Whether you think you can, or you think you can’t – you’re right.”

Henry Ford

Over the past three decades the word “entrepreneurship” has appeared and it has been argued to be the most important economic factor driving the economy (Bruyat & Julien, 2001). It has been referred as an "engine" (Kuratko, 2005) stimulating the economy in new business creation, job development and well-being (Gorman, Hanlon, & King, 1997). Stressing the importance of entrepreneurship, the Global Entrepreneurship Monitor (GEM) highlighted that “lack of entrepreneurship is a bottleneck for innovation driven economies in achieving growth potential” (2008, p.9). This belief is complemented by Taatila (2010) saying that “without an entrepreneurial attitude societies can stagnate, which can hinder the long-term growth and prosperity of a region” (p.48).

The continuous growth of interest in entrepreneurship embodied an increasing research attempting to analyze the factors promoting entrepreneurial role. The significant increased in entrepreneurship can be seen mostly in industrialized countries (Matlay & Carey, 2006). In United States alone, the number of entrepreneurship programs offered has been multiplied to ten times since 1979 – 2001 (Katz, 2008). This rapid increased "can be seen as indicative of widespread governmental belief in the positive impact that entrepreneurship can have on the socio-economic and political infrastructure of a nation" (Solomon & Matlay, 2008 p.382). Policy makers across the world strongly believe that the need of entrepreneurship is strongly acquired in reaching high level of economic growth and innovation (Oosterbeek, Van Praag, & Ijsselstein, 2010).

European policy makers have identified entrepreneurship education (EE) and training as among the main factors that help individual in cultivating entrepreneurial skills and knowledges as well as entrepreneurial intentions (EI) that are essential with the economic growth. Subsequently, the European Commission (2008, p.10) highlighted that “Entrepreneurial programs and modules offer students the tools to think creatively, be an effective problem solver, analyze a business idea objectively, and communicate, network, lead and evaluate any given project.” Given this scenario, there is an underlying assumption that policy makers believe that EE has positive social and economic outcome.

This idea has been supported by several researchers whom have underlined and mentioned the positive impact of EE on entrepreneurial intention (Chrisman, 1997; Peterman & Kennedy, 2003; Zhao, Seibert, & Hills, 2005). There are thirty nine key studies on impacts

of entrepreneurship education that has been reviewed on this paper. Thirty six out of thirty nine (Ohland, Frillman, Zhang, Brawner, & Miller, 2004) studies reported a positive or mixed result (Lorz, Müller, & Volery, 2011). While three studies reported a negative impact of EE (Olomi & Sinyamule, 2009; Oosterbeek et al., 2010; Von Graevenitz, Harhoff, & Weber, 2010). Majority of the studies that indicated a positive impact, encountered a methodological deficiencies that limits the validity of the results. Mostly of the studies only utilized an ex-post examinations which don't measure directly the impact of EE (Kolvereid & Moen, 1997; Noel, 2001) or don't have control groups (Lee, Chang, & Lim, 2005) or use only few samples (Clouse, 1990; Fayolle, Gailly, & Lassas-Clerc, 2006a). If the studies are going to be filtered by considering only those studies that utilized ex-ante, ex-post designs with control groups and a bigger sample with $n \geq 100$, then only a total of four studies will be left (Lorz et al., 2011). Of those, one study that indicates a significantly positive impact (Peterman & Kennedy, 2003), two studies reported with mixed or insignificant results (Olomi & Sinyamule, 2009; Souitaris, Zerbinati, & Al-Laham, 2007) and one with significantly negative result (Oosterbeek et al., 2010). It is thus not surprising that the overly positive results are researches that lacks robust designs. Hence, many scholars have called for more research on the impact of entrepreneurship education suggesting the use of more robust research designs.

More recently, it has been studied on how EE influence on individuals self-efficacy (SE). Self-efficacy or "self-confidence" is a persons' belief on his/her capability of performing a certain task or action (Bandura, 1997). It has been argued by many scholars that EE does not only enhances students' EI but also strengthen students' entrepreneurial self-efficacy (ESE) by augmenting their attitudes and providing them knowledge, skills and competencies towards entrepreneurial tasks (e.g. seeking opportunity, assembling resources and managing successful business) (Wilson, Kickul, & Marlino, 2007). In particular, education heightened students' ESE through engagement in various entrepreneurial activities and increasing their motivation to create and start their own business by accentuating the benefits and advantages of entrepreneurship (Segal, Borgia, & Schoenfeld, 2005). Moreover, the use of EE or training as an "intervention" to improve the level of ESE of an individual has been proven and tested by a number of researchers and scholars (see Baughn, Cao, Le, Lim, & Neupert, 2006; Cox, Mueller, & Moss, 2002; Erikson, 2002; Florin, Karri, & Rossiter, 2007; Wilson et al., 2007).

Thus, helping the students to develop their ESE allow them to put more efforts in a long-run, persevere challenges and create strategic plans and ideas in order to achieve higher entrepreneurial goals (Segal et al., 2005). Authors hereby acknowledged that higher entrepreneurial efficacy leads to higher entrepreneurial intention (Segal et al., 2005). However,

(Chen, Greene, & Crick, 1998) stated that there is only few empirical evidence on how EE and training influence SE. Chen and his colleagues employ ESE to differentiate entrepreneurs from those who don't aim to start their own business. Selecting students in entrepreneurship, management and organizational psychology as participants of their study, authors concluded that EE was a valid construct in developing ESE and intention of students to create their own business (Chen et al., 1998). Looking on the impacts of education on student's entrepreneurial competency development, (Rae & Carswell, 2000) proposed a model of which self-efficacy is in the center. Authors examined the learning process of entrepreneurial development using a life-story approach and argued that self-efficacy or "self-confidence" of an entrepreneur is highly influenced by several factors such as personal values and motivation, personal theory, known capabilities, social relationship and active learning (Rae & Carswell, 2000 p.224). These factors serve as an engine of entrepreneurial capabilities and development over time. The work of (Zhao et al., 2005) also investigated the mediating role of ESE by examining the relationship between entrepreneurship courses and students' EI. Authors hereby stressed that EE should put more emphasis on students' ESE by providing them various learning opportunities rather than focusing on technical aspects of entrepreneurship.

In addition to self-efficacy, another important factor that may impact intentions to start a business is an individual's risk-taking propensity (Barbosa, Gerhardt, & Kickul, 2007). Risk propensity or risk-perception is defined as an individual's general tendency towards either pursuing or avoiding risk in making a particular decision (Mullins & Forlani, 2005). Empirical research on entrepreneurship demonstrated that psychological characteristic such as risk-perceptions influence individuals' entrepreneurial intention (Stewart Jr & Roth, 2001; Weber, Blais, & Betz, 2002).

The purpose of our study is to analyze the impact of EE teaching methods (TM) and role of teachers (RT) on entrepreneurial intention, entrepreneurial self-efficacy and risk. In addition, we are also going to examine the mediating effects of entrepreneurial self-efficacy on RT→EI relationship, TM→EI relationship, RT→risk relationship and TM→risk relationship.

1.1 Problem Statement

About one-fifth of Norwegian economy highly relies on oil and gas sector. The substantial downturn in Norwegian oil and gas industries since 2014 have caused several employees to lose their jobs. Unemployment rate in Norway reached up to 5% last July 2016 reaching the highest record at all time (www.ssb.no). To curb this issue, unemployed workers can choose to be self-employed. Many of these unemployed workers can be potential entrepreneurs.

Entrepreneurial activities were seen as a mechanism in coping sluggish economies and managing unemployment issues and as a source of economic progress and job formation for developing countries (Mueller & Thomas, 2001). In Norway, entrepreneurship education can be enhanced through entrepreneurial training. One of the initiatives is to offer a short term entrepreneurial education (SEE). It is an ongoing discussion that successful entrepreneurs can be developed through SEE (McClelland & Winter, 1969). However, there is no clear evidence on what are the particular effects of SEE have on intentions and competencies of an individual to start a firm.

1.2 Research Contribution

The general objective of our research is to determine the role of entrepreneurial training provided by Skape Rogaland to its participants of the program. Our study discusses on how effective Skape's entrepreneurial training with respect to participants' entrepreneurial competencies (termed as entrepreneurial self-efficacy) and intention in starting their own business and their perceptions of risks associated with a start-up activity.

Skape is an institution that provides information, guidance, competence and training for new business owners. It is referred to as the "centre of entrepreneurship in Rogaland" which is publicly owned and funded by Rogaland County Council, Great Stavanger Economic Development, Innovation Norway, The County Governor of Rogaland, NAV (Norwegian Labor and Welfare Organization), and Local Councils. The company is aiming to offer advice and assistance ensuring independence for the newly business owners as well as giving an in depth understanding of the daily business routine. Individuals who would like to start up their own business or have newly established their business are Skape's main target groups. There are different types of entrepreneurial courses that Skape offers. Among those courses are: *introduction course for new businesses*, *course for business start-up*, and *theme nights*.

Introduction course for new businesses has a duration of 3 hours. The main purpose of this course is to provide useful information on business plan, choice of company form, registration & portals and personal motivation.

Course for business start-up is considered as the longest course Skape offers which has a total of 42 hours. This course is aimed to discuss topics on how develop business ideas, analyze market situation, to make business plan, choice of company form, economy and profitability of the business, and marketing.

Theme nights is a short special course aiming to answer an individuals' owned concerned in business establishment.

It has been mentioned earlier that there is a continuous rise of EE programs offered. Yet, as described in previous section, past research studies were mostly inaccurate and gave ambiguous results with respect to the impact of EE. Given this situation, our study address the following main Research Question:

How does short term entrepreneurial education affect entrepreneurial self-efficacy, entrepreneurial intentions and risk-perceptions?

In previous research, education was often considered just as dichotomous variable. For example, in study of Noel (2001) and Von Graevenitz et al. (2010), authors only assessed changes in EI as if students were enrolled the course of entrepreneurship. However, such factors as quality of teaching or quality of course was not assessed. In other studies, researchers looked more deeply in methods of teaching (see Bennett, 2006; Garavan & O' Cinneide, 1994; Hytti & O'Gorman, 2004; G. T. Solomon, Duffy, & Tarabishy, 2002; Wang & Verzat, 2011; Wee, 2004). In our study we wish to look deeper into teaching methods as well as role of teachers as major motivator. In study of Fayolle et al. (2006a), Kent (1990) and Sánchez (2013), role of teachers was stressed as an important factor related to EI and entrepreneurial competencies.

Thus, our study aim to answer the following ***research sub-questions***:

- 1. How participation in entrepreneurship training influence EI, ESE and risk perceptions of students?***
- 2. How role of teachers and teaching methods influence EI, ESE and risk perceptions of students?***
- 3. Does entrepreneurial self-efficacy played a mediating role on the relationship between dependent (e.g., RT & TM) and independent variable (e.g., EI and risk)?***

We hope to both **theoretical** and **practical** implication to study the impacts of SEE. Our theoretical contribution in uncovering the role of teachers and teaching methods in formation of students entrepreneurial intentions, self-efficacy and risk perceptions. We believe that this study will enhance and extend existing bodies of knowledge on these important issues. Further, our study has several practical implications. It will allow to examine the effectiveness of Skapes' SEE in developing entrepreneurial competencies and intentions among its participants of the program. Based on that, it will allow to draw some practical recommendation on how to improve the program.

1.3 Research Scope

Although our study is quite promising, it is important to note its scope in order for our study to remain controllable.

First, the geographic location is limited to Rogaland County. This could possibly have an impact on the overall attitude of an individual in an entrepreneurship program.

Second, our study is focused on participants of Skapes' entrepreneurial training. Participants have different background profile (e.g., age, gender, educational attainment, employment status, previous work experience, and etc.). Participants should have been categorized accordingly.

Third, our main dependent variables are entrepreneurial intention, entrepreneurial self-efficacy and risk-perceptions. Entrepreneurial intention has been considered the most appropriate indicator and best predictor in measuring the impact of EE.

Fourth, exogenous factors (e.g. age, gender, educational level, employment status, previous work-experience, and prior entrepreneurial exposure) that may impact EI during the time of entrepreneurship training are considered as control variables in our study.

2. LITERATURE REVIEW ON ENTREPRENEURIAL INTENTIONS; ENTREPRENEURIAL SELF-EFFICACY; RISK PERSEPTIONS AND ROLE OF ENTREPRENEURSHIP EDUCATION

On this chapter, theories are discussed and hypotheses for this study are derived based on the following discussion. First, this Chapter provides an overview of our dependent variables in the present study – Entrepreneurial Intentions (EI), Entrepreneurial Self-efficacy (ESE) and risk-perceptions. Starting from definitions of EI we move forward to discussion of antecedents of EI – demographic characteristics of entrepreneur, followed by discussion of ESE and risk perceptions.

Secondly, we move to thorough discussion of Entrepreneurship Education (EE) and its role in relation to our dependent variables EI, ESE and risk perceptions. In this section of the Chapter, hypotheses related to the role of EE in relation to EI, ESE and risk perceptions are derived.

2.1 Entrepreneurial Intentions, Entrepreneurial Self-Efficacy and Risk-Perceptions

“Good science has to begin with good definitions”

Bygrave & Hofer (1991, p.13)

2.1.1 Who is an entrepreneur?

The role of an entrepreneur is of huge importance in explaining the concepts of entrepreneurship. Since it is the entrepreneurs who are grasping opportunities, forming intentions and deciding to start up new enterprise, then they should be acknowledged as the cornerstone in studying entrepreneurship, (Kolvereid & Isaksen, 2012). According to Brockhaus and Horwitz (1985), the literature seems to back up the argument that there is no generic definition of an entrepreneur. Moreover, Gartner (1988 p.12) on his main research question on “who is the entrepreneur,” proposed an idea to highlight on what the entrepreneur does instead of asking who the entrepreneur is (Gartner, 1988).

“What differentiates entrepreneurs from non-entrepreneurs is that entrepreneurs create organizations, while non-entrepreneurs do not,” (Gartner, 2002 p. 47). Gartner (1988) listed thirty-two different definitions of entrepreneur from different scholars. Among those widely used definitions are: “major owner and manager of a business venture not employed elsewhere” (Brockhaus,1980); “creator of a new businesses” (Mescon & Montanari, 1981); “a person who uses a new combination of production factors to produce the first brand in an industry”

(Lachman, 1980); “someone who exercises some control over the means of production and produces more than he can consume in order to sell (or exchange) it for individual (or household) income” (McClelland, 1961 p. 65) . “In modern times, the entrepreneur assumes many forms. He may be a private business man, a partnership, a joint stock company, a cooperative society, a municipality or similar body” (Lavington, 1925 p. 19). “The entrepreneur in McClelland’s scheme is “the man who organizes the firm (the business unit) and/or increases its productive capacity,” (Wainer and Rubin, 1969 p.178). “Successful entrepreneurs” are characterized as individuals who initiated businesses which was not created previously and who had been running the business for at least 5 years with a minimum of 8 employees or more (Hornaday and Bunker 1970; Hornaday and Aboud, 1971).

It has been argued that entrepreneurs and managers have the same roles in entrepreneurship. But in terms of authority in an industrial organization, there is always a distinction between them. “The entrepreneur may justify his formal authority independently or he may describe it as delegated from others, notably from the stockholders. But within the organization he alone is the source of all formal authority” (Hartman, 1959 p. 450-451). “The distinction is drawn between “entrepreneurs” who are goal and action oriented as contrasted to “managers” who carry out policies and procedures in achieving the goals” (Litzinger, 1965 p. 268).

Clearly, the number of definitions from different literature is quite daunting and there is no such definition more specific than the others as it depends on what perspective the researcher is focusing on. Gartner (1988) listed 32 various definitions of entrepreneur and entrepreneurship just for showing purposes:

... (1) that many (and often vague) definitions of the entrepreneur have been used (in many studies the entrepreneur is never defined); (2) there are few studies that employ the same definition; (3) that lack of basic agreement as to “who an entrepreneur is” has led to the selection of samples of “entrepreneurs” that are hardly homogeneous. ... (4) that a startling number of traits and characteristics have been attributed to the entrepreneur, and a “psychological profile” of the entrepreneur assembled from these studies would portray someone larger than life, full of contradictions, and, conversely, someone so full of traits that (s)he would have to be a sort of generic ‘Everyman.’ (p. 21)

For the scope of our research, we are going to use the narrow definition of an entrepreneur that is an individual who intent to develop opportunities into new venture creation (Schumpeter, 1934).

2.1.2 What is entrepreneurship?

The term entrepreneurship first came in 1732, when an Irish economist Richard Cantillon adopted the word to refer to an individual who has “a willingness to carry out forms of arbitrage involving the financial risk of new venture” (Minniti & Lévesque, 2008 p. 603). It is derived from the French verb “entreprendre” and German word “unternehmen,” of which both can be translated as “to undertake or start something” (Cunningham & Lischeron, 1991). Schumpeter (1934) introduced the modern concept of entrepreneurship and characterized entrepreneur and entrepreneurship from broader to narrower terms as follows:

“The carrying out of new combinations we call “enterprise”; the individuals whose function it is to carry them out we call “entrepreneurs.” These concepts are at once broader and narrower than the usual. Broader, because in the first place we call entrepreneurs not only those “independent” businessmen in an exchange economy who are usually so designated, but all who actually fulfill the function by which we define the concept, even if they are, as is becoming the rule, “dependent” employees of a company, like managers, members of boards of directors, and so forth, or even if their actual power to perform the entrepreneurial function has any other foundations, such as the control of a majority of shares. As it is the carrying out of new combinations that constitutes the entrepreneur, it is not necessary that he should be permanently connected with an individual firm; many “financiers,” “promoters,” and so forth are not, and still may be entrepreneurs in our sense. On the other hand, our concept is narrower than the traditional one that it does not include allheads of firms or managers of industrialists, who merely may operate an established business, but only those who actually perform that function. ... But whatever the type, everyone is an entrepreneur only when he actually “carries out new combinations,” and loses that character as soon as he has built up his business, when he settles down to running it as other people run their businesses.” (p.74)

This definition were then supported by Gartner (2002), and Low & MacMillan (1988) who referred entrepreneurship as the creation of new organizations of which the activities are not made in a daily business routine. “It is essentially a phenomenon that comes under the wider

aspect of leadership” (Schumpeter 1934, p. 254) or “the act of founding a new company where none existed before” Howell (1972). “By routine entrepreneurship we mean the activities involved in coordinating and carrying on a well-established, going concern in which the parts of the production function in use (and likely alternatives to current use) are well known and which operates in well-established and clearly defined markets” (Leibenstein, 1968 p. 73).

Recent studies defined entrepreneurship as “the creation of new ventures, new products and new markets,” (Read and Sarasvathy, 2005 p.9); a mechanism aiming to start a new company (Cromie, 2000); & generating businesses using a continuous innovative methods (Kuratko, 2005).

In our study, we aim to examine the effects of SEE provided by Skape Rogaland and we choose to use the narrower definition of entrepreneurship as *an innovative process in exploiting business ideas in order to create new firm.*

2.1.3 Defining Entrepreneurial Intent

"Entrepreneurial intent is substantially more than merely a proxy for entrepreneurship - it is a legitimate and useful construct in its own right that can be used as not just a dependent, but as an independent and a control variable."

Thompson (2009, p.670)

Intentions is the key element in explaining human behaviors (Tubbs & Ekeberg, 1991) which belongs to the social cognitive theory (SCT) introduced and developed by Bandura (1986). The main construct of SCT is that “individuals can influence their own actions” (Ratten, V. and Ratten, H. 2007, p.92). Social behaviors like starting-up new businesses can be controlled and are best predicted by intentions toward that behavior (Ajzen, 1991).

Intentions can also be thought of as "a person`s motivation to make an effort to act upon a conscious plan or decisions" (Conner & Armitage, 1998, p.1430). Entrepreneurial intention (EI) like entrepreneurship is interpreted in many ways. According to Thompson (2009), it is a "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" (p. 676). While other researchers describe EI as a state of mind that needs personal attention and knowledge in order to accomplish new venture creation (Bird, 1988; Souitaris et al., 2007), way of finding resources and information to start up a company (Karz and Gartner, 1988), a cognitive representation (Tubbs & Ekeberg, 1991) and personal commitment (Reynolds and Miller, 1992; Krueger, 1993; Krueger et al., 2000) of planned actions in performing entrepreneurial behavior.

To summarize, EI is not just a simple yes or no question whom one can choose. Instead, it is a degree or level which can range from low, medium to high level of intention in performing

businesses (Thompson, 2009). This directly links to Ajzen theory of planned behavior (TBP) which states that: the higher the intention, the stronger is the probability of the behavior (Ajzen, 1991). Thereby EI serves as a mediator or catalyst for actions (Fayolle et al., 2006).

Research on entrepreneurship had proven that EI is the main construct and has been used by many studies as dependent variable (Autio et al., 1997; Davidsson, 1995; Kolvereid, 1996; Tkachev & Kolvereid, 1999; Souitaris et al., 2007). Researchers showed that entrepreneurial behavior (EB) is definitely predicted by EI (Ajzen, 1991) and “intentions are the single best predictor of any planned behavior, including entrepreneurship (Krueger et al. 2000, p. 412).

Continuing the work of the above mentioned researchers, our study will also use entrepreneurial intention as a **dependent variable** and will follow (Krueger, 1993) definition of EI as a *commitment to create a new business*.

2.1.4 Antecedents of Entrepreneurial Intention

Substantial number of previous researches on entrepreneurship areas have identified demographic variables such as age (Levesque & Minniti, 2006), gender (Wilson et al., 2007), previous work experience (Morris & Lewis, 1995), employment status (Ritsilä & Tervo, 2002), and personality traits (e.g. risk-taking propensity) (Nishantha, 2009) to be among the most tested antecedents of EI.

Age

Study of Boyd (1990) confirmed that age is significantly correlated to EI. This has been supported by Bates (1995) who revealed that the intention of becoming an entrepreneur increases with age. This occur as the person approaches to age 40 and then leveling out. However, Kuratko (2005) disprove the idea and explained that “the younger generation of the 21st century is becoming the most entrepreneurial generation since the Industrial Revolution” (Kuratko, 2005 p.578). He further added that in United States, there are around 5.6 million people, below the age of 34 who are actively trying to start their own firm.

Gender

Gender appeared to be an important aspect in studying entrepreneurship. Several studies demonstrated that male have higher EI and are more interested in starting businesses than their female counterparts (Mazzarol, Volery, Doss, & Thein, 1999; Phan, Wong, & Wang, 2002). The work of Reynolds, Gartner, Greene, Cox, & Carter (2002) proved that adult men in U.S. are twice as likely as women to be in the process of setting up new businesses. Moreover, research on the career interest of teens , the potential entrepreneurs of the next generation, has

acknowledged that teen girls' intentions of engaging entrepreneurial activity in the future are significantly lower than that of boys (Kourilsky & Walstad, 1998; Marlino & Wilson, 2003). In addition, the study of (Arenius & Minniti, 2005) also confirmed that men are more inclined in entrepreneurial activity than women. These findings are consistent with the previous research done by Bandura (1992) indicating that women are more likely to limit their ultimate career choices than men because they don't have enough confidence in their abilities. Women in general are empowered in entrepreneurial endeavors because of their perceptions that they lack the required skills of becoming an entrepreneur (Chen, Greene, & Crick, 1998).

Previous Work-Experience

Previous work-experience has been applied in recent studies in evaluating student's attitudes towards entrepreneurial career intention. (Burney & Davis, 2015) examined the determinants of EI using a novel dataset of over 1,400 households generated by the Kentucky Entrepreneurship Survey. Result showed that previous job-experience is one of the significant predictors of EI in rural and urban areas. However, Nishantha (2009) applied previous employment-experience as one of her socio-demographic factors and found out that it has relatively low contribution towards business students' EI.

Employment Status

Employment status is another characteristic that influence entrepreneurial intention. Ritsilä & Tervo (2002) conducted a study of the separate effects of personal, regional and national unemployment on new firm formation in Finland for the period 1987-1995. Results on their study provided a considerable evidence for a positive and non-linear effect of personal unemployment on the intention of an individual in engaging entrepreneurial activities. Furthermore, Storey (1991) have identified personal unemployment and job uncertainty as two main factors that influence individuals' intention to become an entrepreneur.

Prior Entrepreneurial Exposure

Relevant measures on prior exposure to entrepreneurship suggest an intergenerational influence on individuals EI, and this influence will further push individuals towards business start-up and develop their ESE (Carr & Sequeira, 2007). Krueger (1993) employed prior entrepreneurial exposure in testing university business students on their perception of new venture feasibility and desirability. He argued that breadth of prior entrepreneurial exposure significantly impact perceived feasibility of starting a business. While perceived desirability significantly correlates on the positiveness of the previous exposure to entrepreneurship. A similar study of Peterman & Kennedy (2003) used prior entrepreneurial exposure in measuring students perceptions desirability and feasibility of starting a business. Results on their study

was contrast to what Krueger (1993) argued. They found out that both the positiveness and breadth of prior experience were not associated with the perceptions of feasibility and desirability of creating a business.

As the field of entrepreneurship developed, various studies have confirmed a weak and / or insignificant relationship between demographic factors and EI (Franco, Haase, & Lautenschläger, 2010; Liñán & Chen, 2009). These findings were explained by static nature of the above mentioned variables. The use of demographic factors in measuring EI has been criticized by several scholars (Krueger et al., 2000; Veciana, Aponte, & Urbano, 2005). Thus, a new and more dynamic behavioral theories were suggested.

2.1.5 Behavioural theories

Studies have proven that intention models (Ajzen, 1991; Bird, 1988b) captured the link between individuals and their behaviors in explaining entrepreneurial phenomena. Among the most widely used theory is Ajzen's Theory of Planned Behavior (TPB) (Ajzen, 1985); Entrepreneurial Event Model (EEM) (Shapero & Sokol, 1982); Entrepreneurial Intention Model (EIM) (Bird, 1988a) and Bandura's Social-Cognitive Theory (SCT) (Bandura, 2001).

According to TPB, individual's intentions are influenced by three general factors: *attitudes toward behavior, subjective norms and perceived behavioral control*. While exogenous factors (such as traits, demographics, skills and social, cultural and financial support) indirectly influence intention and behavior. All of these factors are considered antecedents of intentions (Ajzen, 1991; Ajzen & Fishbein, 1975, 1980).

Likewise, Shapero and Sokol (1982) suggested another approach in understanding and developing EI. Their EEM is a combination of personal factors and exogenous impact (such as traits, demographics, skills and social, cultural and financial support). Shapero (1975, 1982) argued that entrepreneurship should be viewed as a process determined by *perceptions of desirability, feasibility and a propensity to act*. According to him, these parameters are drivers of EI.

The EIM of Bird (1988) considered intention as "a state of mind directing a person's attention toward a specific object or path in order to achieve a goal" (Bird, 1988 p.442). In this model, EI is predicted by two factors: personal and contextual. Examples of those personal factors are previous entrepreneurial experiences, personalities and abilities. While contextual factors compose of social, political, and economic variables.

Fundamental to the SCT is the *self-efficacy* theory which refers to the degree of confidence a person is capable of doing a certain task or actions (Bandura, 1986).

With respect to these different theories, our article will examine the effect of short-term entrepreneurship education on entrepreneurial self-efficacy using Bandura's SCT. Another behavioral theory explained is *risk-taking propensity*. In our study, we choose to focus on self-efficacy and risk-taking propensity as drivers of EI. Discussion of these theories are found in sections 2.2 and 2.3.

2.2 Self-Efficacy (SE)

The model of reciprocal determinism developed by Bandura (1977), takes its roots from SCT. This model explains human behavior as a reciprocal causation of behavior, personal factors, and environmental events. The interrelations between these factors is shown in figure 1.

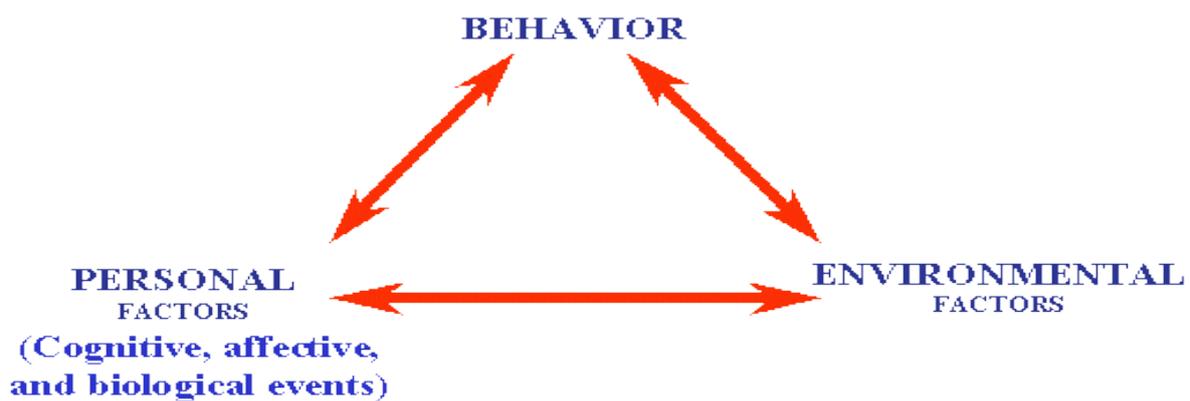


Figure 1 Relationship among behaviour, cognition, and environment (Source: Bandura 1977)

The model shows that an individual's behavior is influenced by the environment and personal factors. In addition, individuals' action can make some changes towards the environment around him/her. At the same time, the environment can also influence his/her personal factors. So each of the three variables in the model can affect the other two variables. Bandura focuses on the personal factors such as beliefs in own ability (self-efficacy) and how it will be affected by both behavior and environmental factors.

The term self-efficacy (SE) also known as "self-confidence" originated from Bandura's social cognitive learning theory (Bandura & Walters, 1977) which refers to a person's belief on his/her competence and capability in performing a certain task or desired actions (Bandura, 1986). It has been widely used in clinical and health research related fields. Just recently it has been adopted in organization and management areas (Gist, 1987; Wood & Bandura, 1989)

which were then extended particularly to entrepreneurship (Boyd & Vozikis, 1994; Chen et al., 1998; Krueger & Brazeal, 1994; McGee, Peterson, Mueller, & Sequeira, 2009). The context of SE is appropriate in studying entrepreneurship since it can be applied into variety of domains such as task specific and domain specific (Bandura, 1982, 1992, 1997). Beliefs on SE influence individual's actions in either ways: positive or negative. This means that a person can have a high SE in one particular area and a low SE on another area. SE can alter the goals an individual is already committed to and affects his or her choices that may or may not enhance performance (Bandura, 1990). SE can be gained gradually through social, cognitive and physical experiences (Bandura, 1986; Gist, 1987). Thus, previous experiences and achievements builds up SE and devotes to higher goals and commitment in future performances (Herron & Sapienza, 1992). Bandura argues that the level of SE can be changed by four factors: enactive mastery, vicarious experience, verbal persuasion, and physical (emotional) state. This is shown in figure2

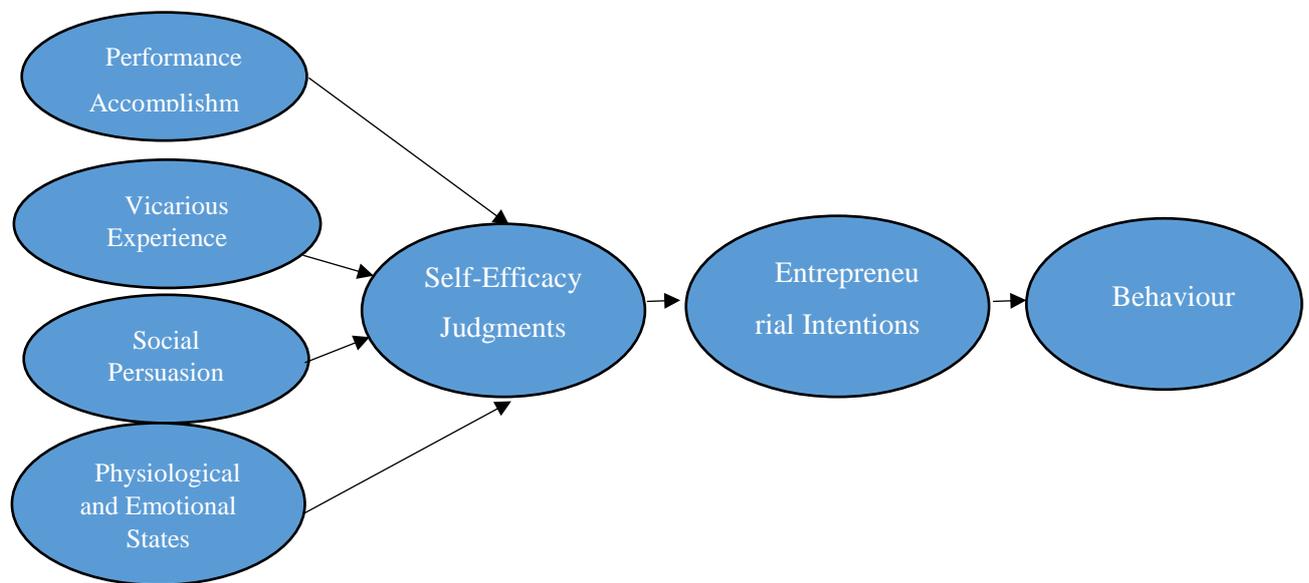


Figure 2 Revised Model of Bandura's (1977) SCT

The most powerful impact on SE is the mastery experience, or, in other words, memories about what an individual has achieved in the past. Experiencing success or failure leads to an increase or decrease level of SE. Successful work experience will form the person's ideas about their ability to perform similar activities in the future. In addition, previous experience/s helps individual to refrain from doing the same mistake again.

Vicarious experience (learning through role models) can also be a source of high SE. Individuals can increase their SE and confidence through observation. For example, if more experienced employees demonstrate correct behavior and the required level of expertise, the

new employees may adopt those form of behavior from colleagues and create an appropriate level of SE.

Another factor is verbal persuasion which can also change SE by convincing others that they are capable of completing a task. Bandura puts forward the hypothesis that the power of verbal persuasion is limited by the perceived status and authority of the persuader. In other words, the effectiveness of verbal belief is directly related to the status and authority that a person who expresses his opinion has for us. Persuading the wrong person will not have enough impact to changes in SE.

Lastly, factors that includes the physical and emotional state of a person can change SE. Bandura found that strong emotions tend to interfere with activities: for example, when a person experiences severe fear, acute anxiety or a state of stress, his/her confidence on effectiveness and own abilities are usually reduced.

This model has been widely used by many researchers for the fact that it gives serious credibility (Boyd & Vozikis, 1994; Chen et al., 1998; DeNoble et al., 1999; Zhao et al., 2005) in the field of entrepreneurship.

Research has shown that high SE has a positive impact in human actions and motivation performances. Scholars like Stajkovic and Luthans (1998) performed a meta-analytic study using 114 previous studies of SE. Results on their study showed a significant weighted average correlation of .38 between SE and work-related performance which means a 38% increase of the average performance (Stajkovic & Luthans, 1998). In entrepreneurship areas, SE has been theoretically found to lead to EI and behavior (Boyd & Vozikis, 1994) and has been empirically tested to positively influence entrepreneurial intentions (Chen et al., 1998). Having low sense of SE, “an individual has little incentive to act or to persevere in the face of difficulties” (Bandura, 2002 p.2). People with low SE act, think and behave differently with people who is having high SE (Bandura, 1986, 1990).

Chen together with his other colleague researchers stated that general self-efficacy (GSE) seized to capture the overall sense of a person’s own self-regulatory abilities, therefore it should be used identically with task-specific domains (Chen, Gully, & Eden, 2001). Statement like “I am confident that I can perform effectively on many different tasks” is having more general construct which may in turn capture most of the variance in performance on a different tasks (Chen et al., 2001). While Eccles (1994) argued that SE is domain specific in some particular areas. Thus, one must weigh the expectations for becoming successful (personal efficacy).

There has been a fundamental disagreement among some theorists on whether GSE construct is sufficient. Moreover Bandura (1997); Bandura & Walters (1977) proposed that SE should be applied in a more specific context and activity domain so it will be recognized better the role of SE on task specific outcomes of interest (Bandura, 1997). To date, number of researchers have aggregated a domain specific measures of ESE which is more convenient and predictive (Chen et al., 1998; DeNoble, Jung, & Ehrlich, 1999; Kolvereid & Isaksen, 2006).

2.3 Entrepreneurial Self-Efficacy (ESE)

When SE is viewed as a key antecedent to new venture creation, it is called entrepreneurial self-efficacy (ESE) (Boyd & Vozikis, 1994; Chen et al., 1998; Krueger & Brazeal, 1994). ESE refers to the person's belief of being able to achieve and perform the roles and task of an entrepreneur (Boyd & Vozikis, 1994). A study on career-related self-efficacy conducted by Boyd and Vozikis (1994) suggested ESE as "an important explanatory variable in determining both the strength of entrepreneurial intentions and the likelihood that those intentions will result in entrepreneurial actions" (Boyd and Vozikis, 1994 p.66). Other scholars complemented this idea that ESE is one of those personal attributes of an individual which appears to be particularly significant antecedent to new venture opportunities (Barbosa, Gerhardt, & Kickul, 2007; Zhao, Seibert, & Hills, 2005). ESE has been recognized to be a strong predictor of EI thereby promoting entrepreneurial actions (Bird, 1988b; Boyd & Vozikis, 1994).

Recent literature on entrepreneurship suggested that an ESE of an individual can be cultivated through education and training thus, potentially increasing entrepreneurial activity rates (McGee, Peterson, Mueller, & Sequeira, 2009; Zhao et al., 2005). Although ESE construct is notably promising, still there are barriers that call for further research on development and effectiveness of the construct. A summary of relevant articles involving ESE is shown in table 1.

Table 1 Key Studies involving ESE

Author/s	Year Published	Dimensions Used	Factor Specificity	Participants	Cultural Setting	Key findings
Chen et al.	1998	22 items loaded on 5 factor matrix	marketing; innovation; management; risk-taking; financial control	140 students and 175 small business executives	Northeastern university and Northeastern state	The type of ESE exhibited between entrepreneurs and managers differs
Anna, Chandler, Jansen, and Mero	1999	12 items loaded on 4 factor matrix	opportunity recognition; formal planning; economic management; human/conceptual competence	170 women business owners	Utah & Illinois	Dimensions of ESE performed by business owners in traditional industries differs from nontraditional businesses
De Noble et al.	1999	22 items	ESE	730 undergraduate, graduate & MBA students	United States & Korea	ESE is significantly associated with EI; Students with entrepreneurship majors exhibit higher ESE than non-entrepreneurship students
Knueger et al.	2000	Not specified	not given	97 senior university business students	not specified	Perceived self-efficacy is positively correlated with perceived feasibility of EI
Begley and Tan	2001	7 items loaded on 1 factor matrix	self-efficacy	1,253 MBA students	6 East Asian & 4 Anglo-Saxon countries	MBA students from Anglo-Saxon countries exhibited higher levels of ESE than those students from East Asian
Dmousek and Glas	2002	19 items loaded on 5 factor matrix	marketing; innovation; management; risk-taking; financial control	302 innovators and graduate students	Slovenia & Czech Republic	The type of ESE exhibited between innovators and graduate students differs
Kristiansen & Indarti	2004	2 items	ESE	251 students	Indonesia and Norway	ESE is significantly associated with EI among Norwegians and Indonesians students
Arenius and Minniti	2005	1 item	ESE	51,721 participants	28 different countries in Global Entrepreneurship	ESE positively correlates to new venture creation
Forbes	2005	15 items loaded on 5 factor matrix	marketing; innovation; management; risk-taking; financial control	95 entrepreneurs in internet	New York	The level of ESE of an entrepreneur is influenced by the way they make strategic decisions on their venture
Zhao et al.	2005	4 items loaded on 1 factor matrix	self-efficacy	265 MBA students	5 U.S. universities	ESE played an important mediating role on factors like perceptions of formal learning, previous entrepreneurial experience and risk-taking propensity on EI

Table 2 - Cont. Key Studies Involving ESE

Author/s	Year Published	Dimensions Used	Factor Specificity	Participants	Cultural Setting	Key findings
Baughn, Cao, Le, Lim and	2006	16 items	ESE	782 business students	China, Vietnam & Philippines	Female students have lower levels of ESE than male
Kolvereid and Isaksen	2006	18 items loaded on 4 factor matrix	opportunity recognition; investor relationship; risk-taking; economic management	297 Norwegian business founders	Norway	ESE is significantly associated with the theory of reasoned action but not with the theory of entrepreneurial behavior
Barbosa, Gerhardt & Kickul	2007	18 items loaded on 4 factor matrix	opportunity identification; management; relationship; tolerance	528 entrepreneurial students	Russia, Norway & Finland	Students' levels of risk preferences and different cognitive styles are associated with different types of ESE

ESE though it differentiates from GSE, still it is broadly conceptualized. Drawing upon the work of Barbosa et al. (2007); Chen et al. (1998) and DeNoble et al. (1999), we identified four task-specific types of ESE which we think are relevant for our study.

1. ***Opportunity-Identification Self-Efficacy (OISE)*** which refers to a person's perceived SE mainly concerned on his/her capabilities in identifying and developing new product and market opportunities.
2. ***Relationship Self-Efficacy (RSE)*** which refers to a person's perceived SE mainly concerned on his/her capabilities in building relationships to other potential investors and entrepreneurs whom could be sources of financial capital.
3. ***Managerial Self-Efficacy (MSE)*** which refers to a persons perceived SE mainly concerned on his/her managerial capabilities (e.g. financial economics and management).
4. ***Tolerance Self-Efficacy*** which refers to a person's perceived SE mainly concerned on his/her capabilities and abilities to work productively under certain circumstances like pressure, stress, conflicts and environmental change.

For the scope of our research, only the first three types of ESE (i.e. OISE, RSE, & MSE) which will be used.

Opportunity-Identification Self-Efficacy (OISE)

In order to become a successful entrepreneur, one must be alert and observant to opportunities (Kirzner, 2009). This alertness involves geographic location which gives the entrepreneur an access for information to opportunity-identification. According to (Romanelli & Schoonhoven, 2001, p.66), "the local conditions and processes" can be a good source for new business ideas. In addition, De Carolis & Saporito (2006, p.42) explained the importance of "social capital" in identifying opportunities thereby giving the potential entrepreneur an advantage through "the way which social structure renders competition imperfect by creating entrepreneurial opportunities for certain players and not for others" (Burt, 1992, p.57).

Experience and opportunity identification are highly related. Previous job experience "provides the would-be entrepreneur with prior information about, for example, which market to enter, how to use a new technology to serve this market, or how to create a product or service to exploit this new technology" (Block & Wagner, 2010 p. 158). Whereas study of Reynolds, Camp, Bygrave, Autio, & Hay (2002) on GEM report stated that entrepreneurship can be a product of two factors: opportunity and necessity. Opportunity entrepreneurship is where an entrepreneur finds a market gap and takes the opportunity to innovate product and create firm out of this gap (Block & Wagner, 2010). While necessity entrepreneurship is based on the idea

that an individual create firm due to lack of other employment opportunities (Reynolds et al., 2002).

Relationship Self-Efficacy (RSE)

Networking and personal relationship of an entrepreneur are among the key tools to business development and new venture creation (Dunham & Venkataraman, 2002). Studies have proven that highly oriented entrepreneurs who are more active in creating a richer and broader relationships among other entrepreneurs, investors, partners, customers and suppliers are the successful ones (Duchesneau & Gartner, 1990; Ostgaard & Birley, 1996).

According to Johanson & Vahlne (2009) networking also played an important role in terms of market expansion other than new venture creation. Authors further added that entrepreneurs must have the ability to network if they wish to expand their firm internationally. Business growth and development relies on “outsidership” which entails that firms need to have enough access to relevant networks in an attempt to internationalize, if not business will be at harm (Ostgaard & Birley, 1996).

Managerial Self-Efficacy (MSE)

Managerial self-efficacy involves gathering of necessary resources such as capital, labor, customers and suppliers to bring the business into existence (Mueller & Goić, 2003). Individual’s decision about the feasibility of new venture creation mainly lies in his/her management ability to execute tasks related to planning and launching of a business (Sequeira, Mueller, & McGee, 2007). According to the theory of Krueger & Brazeal (1994), the more confident an individual manages an entrepreneurial tasks, the greater is his/her perception about feasibility of undertaking a venture.

Summarizing, it could be argued that ESE, consisting of opportunity identification, relationship competences, managerial competence and tolerance competence is a great predictor of entrepreneurial intentions and behavior.

2.4 Risk-Perceptions

In addition to self-efficacy, another important factor that may impact intentions to start a business is an individual’s risk-taking propensity (Barbosa et al., 2007). Risk propensity or risk-perception is defined as an individual’s general tendency towards either pursuing or avoiding risk in making a particular decision (Mullins & Forlani, 2005). Brockhaus (1980) gave a concrete definition of risk to potential entrepreneurs who are aiming to establish new business. He defined it as “...*the perceived probability of receiving the rewards associated with success of a proposed situation, which is required by an individual before he will subject himself to the*

consequences associated with failure, the alternative situation providing less reward as well as less severe consequences than the proposed situation...” Brockhaus (1980, p.513). According to him, there are 3 levels of risk preferences: low, medium and high. Individual’s perception of risk could affect his/her decision to start a business venture. Baumbach and Mancuso (1975) mentioned that individuals who established business belongs to the category of medium risk takers, but he wasn’t able to provide empirical evidence for this viewpoint. Study of Kihlstrom and Laffont (1979) argued that risk averse individuals ended up becoming an employee, while risk-takers ended up becoming an entrepreneur.

Liles (1974) speculation on risk in new venture creation includes risk in terms of financial, career opportunities, relations to family and psychic well-being. In our study, we focused only on risks financial.

Empirical research on entrepreneurship demonstrated that psychological characteristic such as risk-perceptions influence individuals’ entrepreneurial intention (Stewart Jr & Roth, 2001; Weber, Blais, & Betz, 2002). Nishantha (2009) investigated the effect of personality traits on student’s motivation of becoming an entrepreneur. He identified that risk-taking propensity have a significant contribution for developing positive entrepreneurial attitude of students. Study of Rajman (2001) on “Determinants of Entrepreneurial Intention: Mexican Immigrants in Chicago” also reported that personality measures of Mexican (e.g., risk propensity) have a positive impact on EI. Barbosa et al. (2007) examined the risk preference of 528 entrepreneurial students on how it separately or interactively contribute to their own skills and abilities as well as their own EI. Authors proclaimed that students who have high risk preference have higher level of EI and opportunity-identification efficacy. On the other hand, students having low risk preference have higher level of relationship efficacy and tolerance efficacy. That findings indicate that risk-perceptions are related to EI.

2.5 Entrepreneurship Education

2.5.1 Defining Entrepreneurship Education

"There is an expectation that more as well as better entrepreneurship education would result in a proportionate increase in both the number and the quality of entrepreneurs entering an economy"

Solomon & Matlay (2008, p.382)

Entrepreneurship education (EE) has increasingly becoming famous during the last decades since the very first entrepreneurship course presented by Myles Mace at Harvard University (Katz, 2003). Nowadays, it is already taught even in primary and lower secondary

levels (Huber et al., 2014). Various scholars have argued that EE is different from business education (BE) (Hytti & Gorman, 2004; Hindle, 2007; Solomon et al., 2002). Such difference is noted by the European Commission that “the primary purpose of entrepreneurship education [at higher education level] is to develop entrepreneurial capacities and mindsets” (European Commission, 2008: p.11). EE is focused on business activities that entrepreneurs are performing stressing innovation and business growth. While BE is more on general business management and administration prospects (Klandt, 1988).

EE can be viewed in different aspects. It is defined as “as any pedagogical programme or process of education for entrepreneurial attitudes and skills, which involves developing certain personal qualities. It is therefore not exclusively focused on the immediate creation of new businesses” (Fayolle et al., 2006, p. 702). Hood and Young (1993) considered it as a means of teaching individuals on how to start up, engage and perform businesses successfully and profitably, thereby contributing economic growth.

From this perspective, Linan (2004) categorized entrepreneurship education program (EEP) into four different levels: (1) “Entrepreneurial Awareness Education” is a program that helps to promote knowledge about entrepreneurship and identifies attitudes that may have impacts on entrepreneurial intentions (EI) (2) “Education for Start-up” is a program directed for individuals who already have an entrepreneurial idea but still need some supervision on how to become self-employed. (3) “Education for Entrepreneurial Dynamism” is a program targeted for individuals who already are entrepreneurs and wishes to improve their dynamic behavior after the start up stage. (4) “Continuing Education for Entrepreneurs” is a learning program committed for long-run purposes and is geared toward experienced entrepreneurs.

Considering the fact that participants of Skape’s entrepreneurial training is in its’ amateur level, it is appropriate for us to adopt Garavan and O’Cinneide’s (1994) four stages of education for entrepreneurship. The authors hereby differentiate EE from education and training for small business owners and classified them as follows: 1) small business awareness education, 2) education and training for small business ownership, 3) entrepreneurial education, and 4) continuing small business education. This classification helps us to distinguish EE and the corresponding education and training needed for small business owners. The first stage of awareness education is aimed to introduce the basic concepts and theories of entrepreneurship to students. Teaching practical skills and knowledge on how to start up a new company is introduced in the second stage of education and training for small business ownership. This is mainly for individuals who are planning to set up/ own a small company and not for organizational employment. In the third stage, EE is where the students can acquire not only

knowledge on entrepreneurship but also skills, theories techniques and opportunities are learned in order for them to have a successful and innovative business. The last stage is business education intended for adults to refresh their business ideas and skills.

2.5.2 Importance of Entrepreneurship Education

“Studying entrepreneurship as a form of expertise promises to shed light not only to how new businesses and markets are created, but also on how to make existing large enterprises more entrepreneurial as well.”

(Read & Sarasvathy, 2005 p.4)

Entrepreneurship has been a subject of interest and attention for many in recent years. Indeed, the number of entrepreneurship programs offered increased considerably which means there is a demand for this type of education.

Out of many who argued the importance of EE, (Henry et al., 2005) adopted Gibb & Cotton’s (1998) approach (see figure 3) in explaining the importance of EE not at one, but at five different levels.

The first level examined by Henry et al. (2005) is the *global level* where they explained that the reduction of trade barriers and the existence of the Euro currency along with the advancement in telecommunications, technology and transportation have created more opportunities but at the same time more uncertainty in the world. The next level is the *societal level* where complexity and uncertainty are equipped by privatization, deregulation and new forms of governance which contribute to the growing increase of environmental concerns and the continuous recognition of the rights of minority groups. Moving to the *organizational level*, where Henry et al. (2005) mentioned that climate uncertainty is caused by decentralization, downsizing, re-engineering, strategic alliances, mergers and the increasing demand for flexibility within the workforce. At the *individual level*, uncertainty occurred from the large variety of employment options, possibility of having portfolio of jobs which creates higher degree of responsibility and more stress at work. Lastly, on the *personal level*, individuals encountered uncertainty in terms of managing credit and securing finances for their future (Henry et al., 2005, p.100)

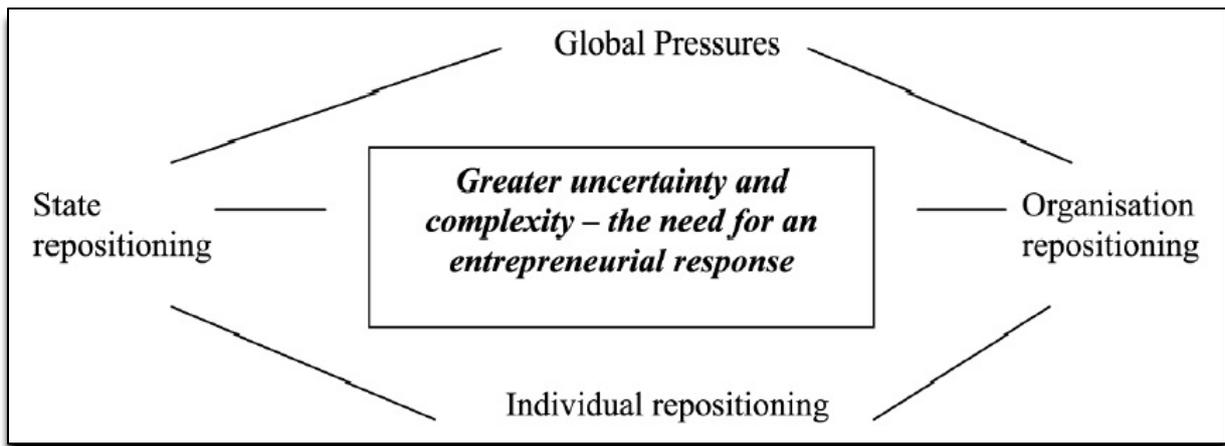


Figure 3 Importance of Entrepreneurship Education (Source: Gibb & Cotton, 1998 p.8)

The above mentioned changes is called *repositioning* (Gibb & Cotton, 1998), which takes place at all five levels creating an amount of uncertainty and complexity in the society we live in (Henry et al., 2005). In order to reduce the complexity and uncertainty, an individual is acquired to have new skills, knowledges and competencies of which EE provides.

Gibb & Cotton's (1998) repositioning has been recognized by other authors as one of the reason behind the importance of EE, though the difference lies in the terminology they used and excepting the fact that not all of them have focused at all five levels (Nacuta, 2014 p.17).

At the global level, several scholars like Kuratko (2005), Matlay (2005) and Naby & Holden (2008), linked EE to economic prosperity which brought forward the importance of this type of education, the future small business growth and the new business creation. Moving forward to societal level, Fayolle et al. (2006a) identified two impacts of EE: direct and indirect impact. Direct impact to society can be seen as new venture and job creation, while indirect impact is emphasizes on the increased entrepreneurial spirit amongst individuals. Focusing on the individual and personal level, numerous researches on entrepreneurship have evaluated the importance of EE and its effect on individual's behavior (see Fayolle et al., 2006a; N. F. Krueger, Reilly, & Carsrud, 2000; Zhao et al., 2005). Authors started first by applying psychological concepts like the need for achievement, locus of control and just recently, they have added the concepts of self-efficacy (SE) and intentions (Nacuta, 2014). Plentiful of studies show that taking an entrepreneurship courses increases the students' SE and their intention of engaging in an entrepreneurial activity rises as well (see McGee, Peterson, Mueller, & Sequeira, 2009; Peterman & Kennedy, 2003; Pihie & Akmaliah, 2009; Wilson et al., 2007; Zhao et al., 2005).

2.5.3 Ways of Teaching Entrepreneurship: “Passive vs Active”

“Entrepreneurship education must be entrepreneurial”

(Kent 1990, p.284)

Designing an effective entrepreneurial courses have been a continuous challenged to many researchers and educators (Fiet, 2001a; 2001b; Gibb, 1993; Henry et al., 2004) due to its wide variations in terms of teaching contents and methods used in the curricula (Charney & Libecap, 2003; Gorman et al., 1997; Solomon et al., 2002). It has been argued by various researchers on what should be the contents and pedagogies appropriate in teaching EE in order for the students to achieve knowledge and skills in entrepreneurship.

Researching for the various teaching methods used in EE, Samwel Mwasalwiba (2010) investigated 26 different teaching methods in educational literature which he later narrowed down to 13 (see fig. 4) and summarized them in 2 groups: “traditional method” (learning through lectures, simply listening and taking notes) and more action-based “innovative method”. He referred them as “passive method” and “active method” respectively.

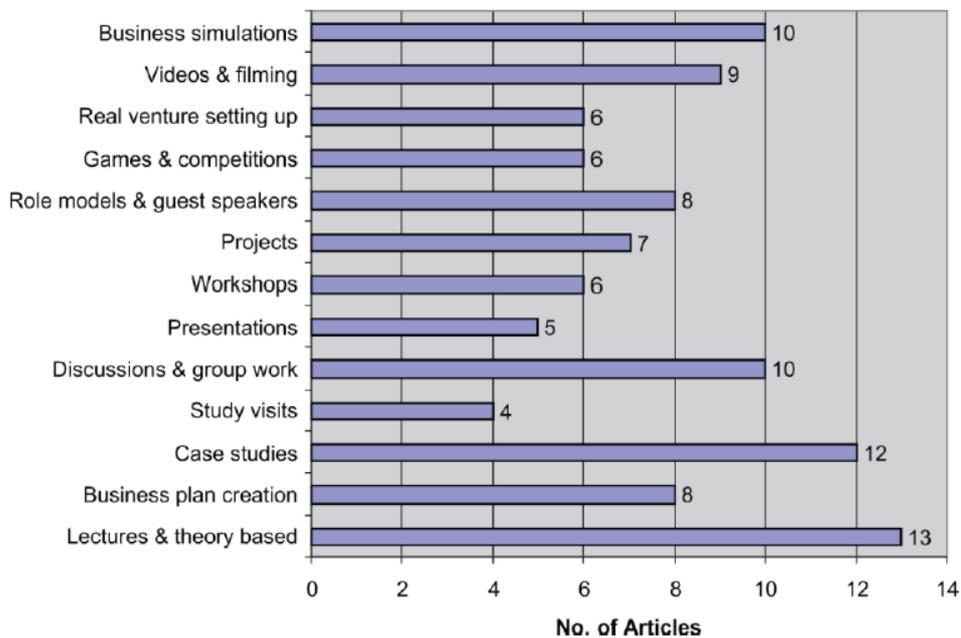


Figure 4 Different Entrepreneurship Teaching Methods (Source: Samwel Mwasalwiba 2010, p.31)

Out of the 13 considered most important methods, the passive ones include: lectures, case studies and discussions & group work. While the active methods comprise of: learning via role-plays, management simulations, brainstorming, team projects and participative discussion sessions (Garavan & O’ Cinneide, 1994). The fact that all the above mentioned methods are

known, it is quite overwhelming that the traditional way of teaching still dominates EE (Samwel Mwasalwiba, 2010).

Garavan and O’Cinneide (1994) suggested that “active” rather than “passive” pedagogical method are more effective in terms of knowledge about the mechanics of running a business. “Passive method” is usually used to apply in business related courses but had no significant impact on entrepreneurial attributes (Bennett 2006). It is similar to task oriented approach to EE which has been criticized by various authors (Henderson & Robertson, 1999; Deakins & Freel, 1999). Rather than focusing on finance and marketing techniques, critics suggest, that EE should focused on creativity, innovation, risk-taking propensity, opportunity identification, and solving business problems (Chen et al., 1998; Curran & Stanworth, 1989; Deamer & Earle, 2004; Garavan & O’ Cinneide, 1994; Jansen & Van Wees, 1994).

Gibb (2002) further acknowledged that traditional teaching method is not appropriate to EE. He associated this way of teaching as “to drive using the rear mirror”. He categorized EE as “training learning focus” and university education as “business school learning focus” (Gibb, 2002). He showed that entrepreneurship could be taught in a more flexible and experienced-based way rather than with focused on understanding and analysis of large amounts of information’s with high degree of control in the classroom. . Gibb’s EE approach encouraged students through learning by doing, problem solving’s ,learning from failure and also to connect with outside world, to learn how to handle stress and uncertainty conditions, to think independently, and to be independent from external sources of information.

2.5.4 Fayolle & Gailly’s Teaching Model for Entrepreneurship Education

Fayolle & Gailly (2008) proposed a generic teaching model for entrepreneurship which is a valuable starting point in designing and evaluating EE, (see figure 5). It incorporates two levels: *ontological* and *educational level*. According to Fayolle & Gailly (2008), this whole process is starting at the *ontological level*. Many other vague questions in entrepreneurship can be answered by taking first into account the first three major questions such as *what entrepreneurship education is, what education means in an entrepreneurial context and what are the roles educators and participants have in this particular context*. There are two dimensions involved in ontological level. First dimension focused on the definition of EE and its meaning in an entrepreneurial context and the second dimension emphasized on the roles educators and students must have within entrepreneurship areas. Based from these dimensions, two propositions were made by the authors: (1) “*each entrepreneurship education program*

should be based on a clear conception of entrepreneurship leading to a non-ambiguous definition of entrepreneurship education” (Fayolle and Gailly, 2008 p.573); & (2) “the educator or teacher should clarify for each entrepreneurship teaching course he or she is in charge his or her philosophical positions concerning key conceptions about teaching, the role of teacher and the role of students or participants” (Fayolle and Gailly, 2008 p. 574-575). In line with the second proposition, Fayolle & Gailly (2008) put much emphasis in teaching and training approaches as key tools to boost students’ SE. Accordingly, (Kent, 1990) admits that the role of a teacher is extremely important in order to create future successful entrepreneurs. According to him, an entrepreneur is an explorer, an adventurer who is willing to take risks, creative and ready for changes. Hence, teachers’ role is not only to give new information, but to break boundaries and remove barriers that hinders students’ self-confidence and innovativeness. Consequently, teacher should be the main inspirer for the students and who with his creativeness and adventurous spirit can show and open up new horizons for the students.

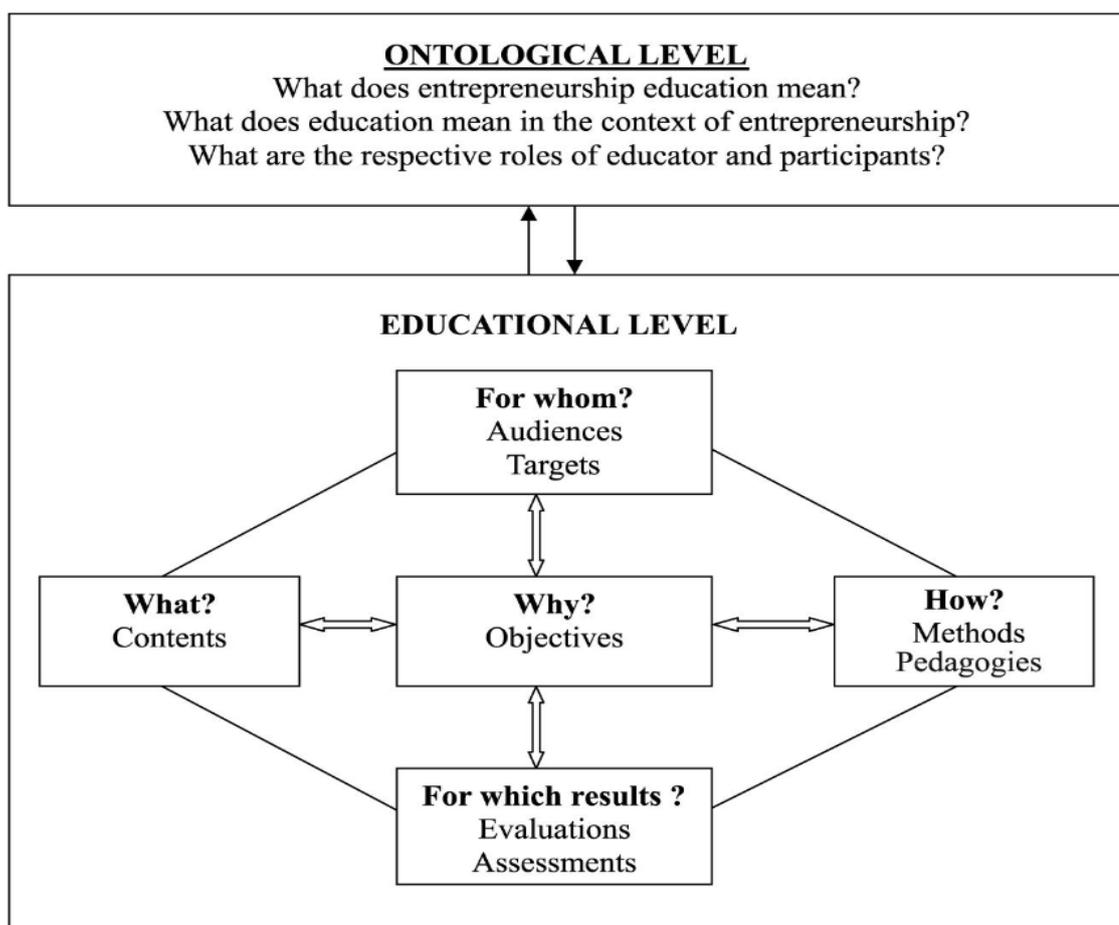


Figure 5 Generic Teaching Model for Entrepreneurship Education (Source: Fayolle & Gailly, 2008, p.572)

The second process is called *educational level*. It includes questions such as: *why, for whom, what, how and for which results* that every syllabus designer should be aware of in making entrepreneurial courses. According to the authors, the *why* dimension is aimed at the objectives and goals of EE, the *for whom* dimension covers the target audience of EE, the *what* dimension takes consideration with the contents used in EE, the *how* dimension is stressed towards the methods and pedagogies used in EE and the *for which results* dimension is focused on the way evaluations are made in EE.

Review of objectives. “Why”

“Entrepreneurship education course should target clear and comprehensive objectives at the micro (individual, participant) level and at the macro (organization, society) level.”

(Fayolle & Gailly, 2008 p.576)

The “why” dimension covers the objectives and goals of EE. Number of articles have diversified EE due to the objectives that may be achieved after attending entrepreneurship programs. For example, Hills (1988) surveyed 15 entrepreneurship leading educators in U.S and found out that there were two significant objectives in studying EEP. First is to increase students’ awareness and understanding involved in the entrepreneurial process and second is to increase students’ awareness of owning small business as a real career path (Henry et al., 2005). While Cox et al. (2002) have different understanding and hypothesized that the primary objective of entrepreneurial training is to develop student’s self-efficacy with regard to new business creation. Some other authors claimed that EE is generally aimed to developing entrepreneurial attitudes, spirit and culture (Samwel Mwasalwiba, 2010).

Target groups. “For whom?”

“Entrepreneurship education course should be designed through a thorough understanding of the profile and background of the audience, particularly in terms of prior entrepreneurial exposure.”

(Fayolle & Gailly, 2008 p.577)

The “for whom” dimension clarifies the target & audiences of EE. As literature shows, different types of entrepreneurship courses should vary in terms of the target audience Gorman (1997). Students enrolled in entrepreneurship courses have different socio-demographic characteristics, as well as maybe different motivations and aspirations towards entrepreneurial activity. According to some authors (see Pihkala and Miettinen, 2004; Noel, 2001), students’ basic discipline, age, nationality and educational background could play an important role in

EE. In this respect, it is important for the educators to provide and design entrepreneurial courses that fits their students profile and background.

Contents “What”

“Depending on the objectives and audience profile, the contents of each entrepreneurship course should be explicitly defined through a combination of three dimensions (professional, spiritual and theoretical).”

(Fayolle & Gailly, 2008 p.579)

The “what” dimension explains the contents of EE. It is comprise of three dimensions in itself: professional, spiritual and theoretical. This is in line with Johannisson’s (1991) five specific dimensions of EEP. Practical kind of knowledge belongs to the professional dimension. It includes know-what (which directs to entrepreneurial knowledge), know-how (which discusses entrepreneurial skills and abilities); & know-who (which describes the social interaction). While spiritual dimension include two kinds of knowledge: know-why (which explains the values and motives of human actions & behavior) and know-when (which demonstrates intuition on when is the appropriate time to act) (Bilić, Prka, & Vidović, 2011; Fayolle & Gailly, 2015; Fayolle, Gailly, & Lassas-Clerc, 2006b; Souitaris et al., 2007). Lastly, the theoretical dimension indicate the theories one needs in order to comprehend the entrepreneurial phenomena.

The fact that entrepreneurship is still in its emerging field can be the reason of the non-homogeneity contents of entrepreneurship courses across all establishments offering (Solomon et al., 2002).

Methods & Pedagogies. “How”

“The selection of the pedagogical methods for each entrepreneurship education course should rely upon their adequacy and a priori efficiency regarding the objectives, the audience characteristics, the contents and the constraints due to the institutional context.”

(Fayolle & Gailly, 2008 p.580)

The “how” dimension examines the teaching methods used in entrepreneurship. Aiming an effective entrepreneurship education programs, teachers, educators and lectures must design effective entrepreneurial teaching methods for students. One of the hindrances concerning the development of entrepreneurship area is the lack of “solid theoretical bases upon which to build pedagogical models and methods” (Kuratko, 2005 p.583). As mentioned from the previous

section, there are two types of teaching method: traditional and innovative method. The choice of one or another method highly depends on the contents and objectives of EEP.

Evaluations & Assessments “For Which Results?”

“In line with the objectives and the audience characteristics, the identification of the relevant evaluation criteria, and their effective measurement methods should be defined for each entrepreneurship education course.”

(Fayolle & Gailly, 2008 p.578)

The last dimension, “for which results” deals with the assessments and evaluation made in entrepreneurship courses. It has been an ongoing challenge for theoreticians to measure the effectiveness of EE. Literature reviewed by Samwel Mwasalwiba (2010) evaluated the impact of entrepreneurship courses on students. He examined a total of 17 key articles of which 27 indicators were noted and grouped. He further explained that in measuring the effectiveness of an entrepreneurship courses, one needs to find out the percentage of graduates who were able to start up their own company. This result was consistent with the findings of other researchers who associated entrepreneurship into new business creation, but contrast to Kuratkos’ (2005) findings where he stated that entrepreneurship is more than just merely a creation of business. Particularly he associated entrepreneurial courses with the creation of “individuals” who are meant to set up businesses (Charney and Libecap, 2000; Henry, 2004; Rosa, 2003).

2.5.5 Impacts of Entrepreneurship Education

Education in general is broadly confirmed to have positive effects on entrepreneurship (Robinson & Sexton, 1994). Study of (Robinson, Stimpson, Huefner, & Hunt, 1991) showed a substantial relationship between EE and the probability of becoming a successful entrepreneur. However, their studies failed to differentiate between the different kinds of education and ignored the possibility of a well-designed EEP. In our study, 39 key articles on EE have been reviewed regarding the impacts of EE (see table 2).

Table 2 Key Articles on EI

Table 3 - Key Articles on EE

Author/s & Year	Cultural setting	Sample Size	Level / Participants	Dependent Variable	Impact	Key Findings
Clark, Davis & Harnish (1984)	France	1265	university	entrepreneurial attitudes	positive	significant relationship between EE and new venture creation
Clouse (1990)	U.S.	45	university	entrepreneurial behavior	positive	introductory entrepreneurship courses can influence students decisions concerning new venture creation
Garnier and Gasse (1990)	Canada	228	university	personal characteristics, entrepreneurial potential	positive	speculated effect for respondents: course influence initiating business is estimated to be strong (44%), moderate (48%) and mild (8%)
Chrisman (1997)	Calgary	181	university	entrepreneurial assistance, entrepreneurial performance	positive	88% of the clients reported a positive impact of the program
Kolvereid & Moen (1997)	Bodø, Norway	374	university	entrepreneurial behavior, entrepreneurial intentions	positive	students having entrepreneurship majors have higher entrepreneurial intentions than those students major other fields
Kourilsky & Esfandiari (1997)	Kansas, City	95	high school	basic & advance entrepreneurship knowledge	positive	EE had a significant positive impact on both basic & advanced entrepreneurship knowledge
Hansemark (1998)	not specified	70	high school	need of achievement, locus of control	positive	Participating in EE significantly increased need for achievement & internal locus of control
Fayolle (2000)	France	25	business schools	entrepreneurial behavior	positive	The competitiveness of entrepreneurship school plan crucial role to students' motivation of starting a business
Galloway & Brown (2002)	U.K.	1933	university	entrepreneurial competencies	insignificant	Investments' return in EE is more likely in long-term than immediate
Menzies & Paradi (2002)	Canada	60	university	propensity to venture, business characteristics	positive	EE leads to a higher venturing rate among engineering graduates
Peterman & Kennedy (2003)	Australia	109	secondary school managers	EI, perceived desirability, perceived feasibility	positive	Enterprise education programs (YAA) increases student perceived desirability & perceived feasibility
Thornberry (2003)	U.S.	300	managers	entrepreneurial thinking & acting	positive	Through management education & action learning projects, managers can be trained to become entrepreneurial learning
Wee (2004)	Singapore	not given	university	entrepreneurial learning	positive	problem-based learning approach in EE promotes entrepreneurial learning

Table 4 - Cont. Key Articles on EE

Author/s & Year	Cultural setting	Sample Size	Level/ Participants	Dependent Variable	Impact	Key Findings
DeTienne & Chandler (2004)	U.S.	130	university	(SEEC) securing, expanding, exposing & challenging, propensity to innovate	positive	SEEC positively influence students' abilities to create more innovative ideas for business opportunities
Ohland et al. (2004)	North Carolina	109	university	teamwork, leadership skills	positive	Students who participated in EEP have developed their teamwork & leadership skills compared to non-participants
Chrisman, McMullan & Hall (2005)	Pennsylvania	159	entrepreneurs	business performance: sales & employment	positive	amount of business preparation have both positive & significant effect on long-term ventures
Galloway et al. (2005)	Scotland	519	university	entrepreneurial skills	positive	students in entrepreneurship perceived their skills to be improved
Lee et al. (2005)	U.S. & Korea	379	university	intention of venture creation (VC), knowledge & ability of VC, recognition of the importance of EE	positive	American students have higher level of intention, confidence, knowledge & ability of venture creation than Koreans
Zhao et al. (2005)	U.S.	265	university	EI (using ESE as mediator)	positive	ESE fully mediates students perceptions of formal learning, entrepreneurial experience & risk-propensity on EI
Fayolle et al. (2006a)	France	20	university	EI, perceived behavioral control	positive	EEP strongly impacts students' EI & have positive but low impact on students' perceived behavioral control
Friedrich et al. (2006)	South Africa	84	entrepreneurs	entrepreneurial competencies	positive	entrepreneurs who attended the training had significant improvement in business performance than those who don't
Lee, Lim, Pathak, Chang & Li (2006)	U.S., Korea, China & Fiji	307	university	intention & confidence of VC, intention of overseas VC	positive	Cultural context in each country has differentiated students in terms of intention and confidence of venture creation as well as intention of overseas venture creation
Ayinla Alarape (2007)	NASSI, Lagos Chapter	62	owner-managers	entrepreneurial-managerial skills	positive	Small business owner-managers who were exposed in entrepreneurship programs showed higher managerial practice than those who don't

Table 5 - Cont. Key Articles on EE

Author/s & Year	Cultural setting	Sample Size	Level / Participants	Dependent Variable	Impact	Key Findings
Garalis & Strazdiene (2007)	Lithuania	103	college	entrepreneurial skills	positive	Most students revealed that entrepreneurial skills are crucial in business start-up
Liao & Gart (2007)	Michigan	312	entrepreneurs	start-up status	positive	Entrepreneurs who were engaged in business planning significantly increased their chances of business start-up
Souitaris et al. (2007)	U.K., France	124	university	entrepreneurial attitudes & EI	mixed	Post programs increased EI & subjective norms; No changes on ATB & perceived behavioral control; Negative relation between intention & nascency; Inspiration raises EI & attitudes
Wilson, Kickul & Marlino (2007)	U.S.	5225	high school, university	ESE & EI	positive	Impacts of EE in MBA programs on ESE exhibited higher for women than men
Cheung (2008)	Hongkong	55	secondary school	entrepreneurship skills & attitudes	positive	EE positively equipped pupils future career intention
Harris et al. (2008)	U.S.	358	university	entrepreneurial attitudes	positive	Completion of Small business Institute provide a strong impact on students' entrepreneurial attitudes
Nabi et al. (2008)	Poland	50	university	entrepreneurial motivation, EI, prior experience	positive	EE has a positive impact on EI and entrepreneurial career aspiration of Polish students
Solomon & Matlay (2008)	U.K.	64	entrepreneurs	entrepreneurial skills, knowledge & attitudes	positive	EE positively impact on graduate entrepreneurs entrepreneurial outcome
Petridou & Glaveli (2008)	Greece	104	co-operative members	entrepreneurial skills & attitudes, co-operatives' viability and work-family balance	positive	Participants of entrepreneurship training programs perceived positive benefits towards entrepreneurship in terms of skills improvement, effective co-operation & work-family balance
Radu & Loue (2008)	France	44	university	ESE & behavioural intention	mixed	Positive impact of role model who embodied the ideal self-guide on ESE & EI; Negative impact of role models who embodied the ought self-guide particular to low involved subjects
Athayde (2009)	U.S., London	305	high school	entrepreneurial attitudes	positive	Participation to EE gives rise to positive attitude towards self-employment & greater enterprise potential
Cruz et al. (2009)	Spain	354	entrepreneurs	innovation behavior	positive	EE has a direct & positive impact on individuals' innovativeness

Table 6 - Cont. Key Articles on EE

Author/s & Year	Cultural setting	Sample Size	Level / Participants	Dependent Variable	Impact	Key Findings
Olomi & Sinyamule (2009)	Tanzania	508	professionals	entrepreneurial inclination	negative	participation to entrepreneurial courses has no significant effect on start-up inclination of students
Bakotic & Kruzic (2010)	Croatia	176	university	EI, entrepreneurship perception	positive	the level of students' EI and their willingness to put effort on entrepreneurial career activities increased
Oosterbeek et al. (2010)	Netherlands	250	college	entrepreneurial skills & motivation	negative	EE showed insignificant effect on students' entrepreneurial skills and negative effect on EI
Von Graevenitz et al. (2010)	Germany	196	university	entrepreneurial skills & intention	negative	EE resulted intentions to found a business decline while significant positive effect on students self-assessed entrepreneurial skills

As it is evident from the table above, majority of studies register positive effects of entrepreneurial education on either intentions, self-efficacy or other competencies. Theory implies that purposeful education could play an important aspect in self-efficacy development, fortifying entrepreneurial intentions or developing realistic risk perceptions. The use of EE or training as a “means” to increase the level of ESE of an individual or EI has been proven and tested by a number of researchers and scholars (see Baughn et al., 2006; Cox et al., 2002; Erikson, 2002; Florin et al., 2007; Wilson et al., 2007).

The negative or zero effects were observed for students taking mandatory courses (for example Oosterbeek et al., 2010), indicating that motivation for entrepreneurship can affect the effects of education. Since our respondents are self-enrolled into entrepreneurship education we see them as highly motivated. We thus hypothesize that participation in entrepreneurial course would positively affect EI, ESE and risk perceptions. Figure 6 below presents our first set of our hypotheses:

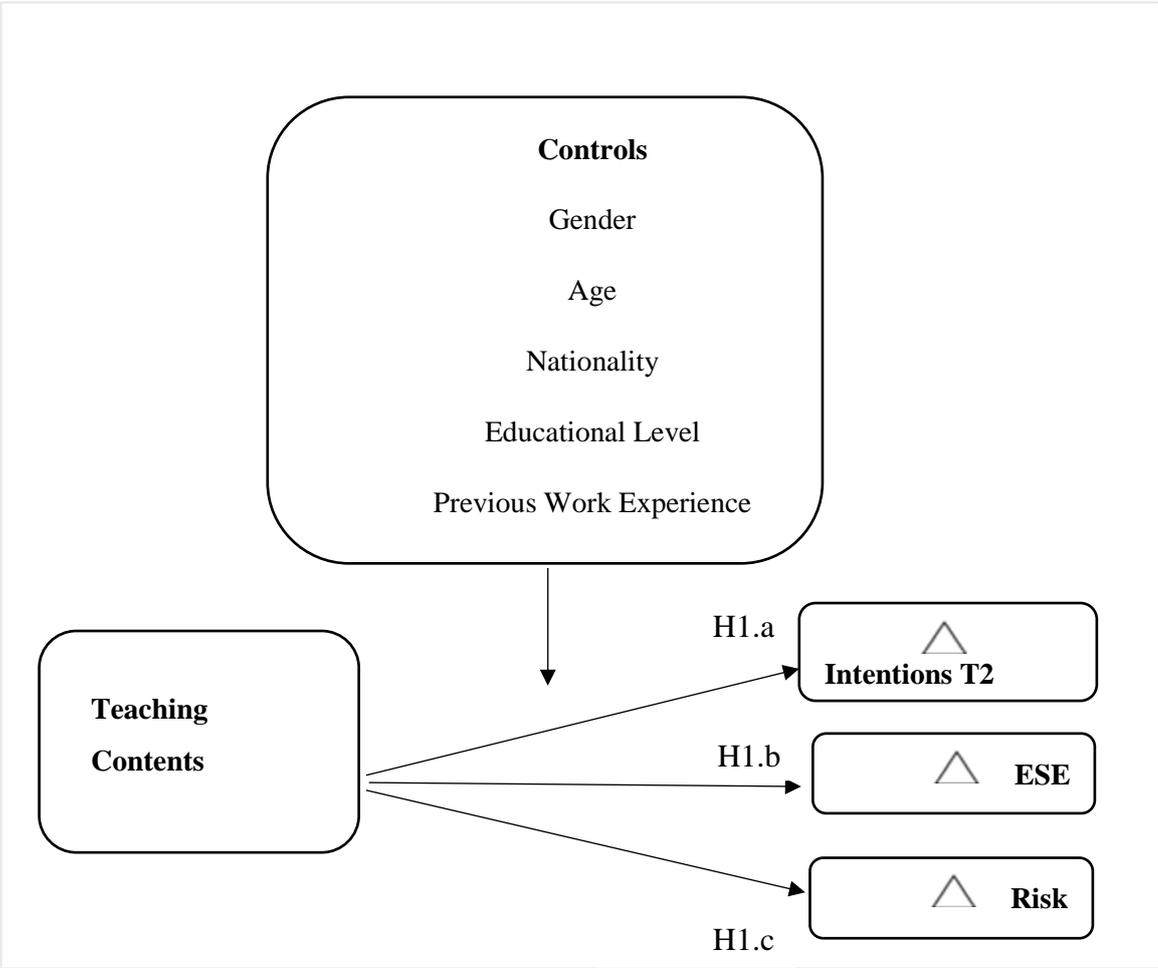


Figure 6 Conceptual Framework (Source: Own Contribution)

In the figure 6, the “teaching contents” reflects to the “*what*” dimension in Fayolle & Gailly’s, (2008), model. Controls relates to “*for whom*” dimension. Evaluations and assessments, “*for which result*” dimension, will be made through the measurement of the changes of EI, ESE and risk. Thus, the following hypotheses are stated:

Hypothesis 1.a: Participation in entrepreneurship course will positively affect EI

Hypothesis 1.b: Participation in entrepreneurship course will positively affect ESE

Hypothesis 1.c: Participation in entrepreneurship course will reduce perception of risk

According to Mueller (2011), there are seven components of educational measures which are particularly effective in influencing SE and thus, affects entrepreneurial behavior. These components include (1) *practical knowledge* where it includes verbal communication with a lecturer and problem solving of practical entrepreneurial case projects; (2) *business planning* is a teaching process that focused on development of business strategies, writing of business plan, and implementing of business ideas; (3) *role models* where it provides opportunity to observe successful entrepreneur, thus students could get inspired and encouraged; (4) *entrepreneurial network* which is directed to the opportunity in meeting other persons with entrepreneurial intentions as well as with entrepreneurs and inventors; (5) *student-orientation* that incorporates discursive, adaptive, interactive and reflective elements of learning approach; (6) *explorative elements* where previous experience is identified as the main source of learning; and (7) *feedback*.

In the literature review of Chen and his colleagues about SE ad EI, they identified that while focusing on management skills, entrepreneurial skills such as innovation and risk-taking are often ignored. They accentuated that the teaching of the latter ones tends to be technical. Teachers, educators and lecturers should pay attention to entrepreneurial attitudes and perceptions in creating and evaluating course objectives. Giving students the opportunity to meet successful entrepreneurs on lectures and be in constant verbal contact with instructor and renowned entrepreneurs is a way of enhancing ESE (Chen et al., 1998).

Moreover, the study of Zhao et al. (2005) about “The Mediating Role of Self-Efficacy in the Development of Entrepreneurial Intentions” described four different teaching approaches used in entrepreneurial courses which are directed to the development of SE. This includes enactive mastery, role modelling and vicarious experience, social persuasion and judgment of

one's physiological state. According to them, simulated business exercises and case competitions increased students' enactive mastery, while role modeling and vicarious experience are promoted through lectures given by guest-entrepreneurs and working on the course cases with them. The third mechanism of SE is social persuasion. This can be achieved through constant evaluation of the students' performance by experienced lecturers. Finally, by collaborating with successful entrepreneurs and observing their working styles, students get motivated to develop their own psychological coping strategies.

Summarizing previous researches, we can conclude that two constructs constitute the core of EE and has a major potential to impact EI, ESE and risk perceptions: **role of teachers** (Fayolle and Gailly, 2008) and **teaching methods** (Samwel Mwasalwiba, 2010). Empirical studies of Chen et al. (1998), Lucas & Cooper (2004) and Zhao et al. (2005) have found a positive relationship between EE and ESE as well as with EI. Research of Fayolle and colleagues (Fayolle et al., 2006a; Fayolle and Gailly, 2008) highlighted the role of teachers and teaching methods/pedagogies needed be used in order to boost students' SE. Moreover, study of Pittaway & Coper (2007) argued that students' perceptions on entrepreneurship can be influenced due to EE. While some studies have found that risk-taking propensity positively impacts on both self-efficacy and intentions to be self-employed (Nishantha, 2009; Zhao et al., 2005) Given this scenario, our focus will deal with the influence of EE particularly in teaching methods and role of teachers on students' ESE, EI and risk.

Hence the following hypotheses are stated:

Hypothesis 2a: Role of teachers positively impact EI.

Hypothesis 2b: Teaching Methods' positively impact EI.

Hypothesis 3a: Role of Teachers positively influence ESE.

Hypothesis 3b: Teaching Methods' positively impact ESE.

Hypothesis 4a: Role of teachers positively influence risk.

Hypothesis 4b: Teaching Methods' positively influence risk.

In figure 7, the visualization of our hypotheses 2a to 4b is presented.

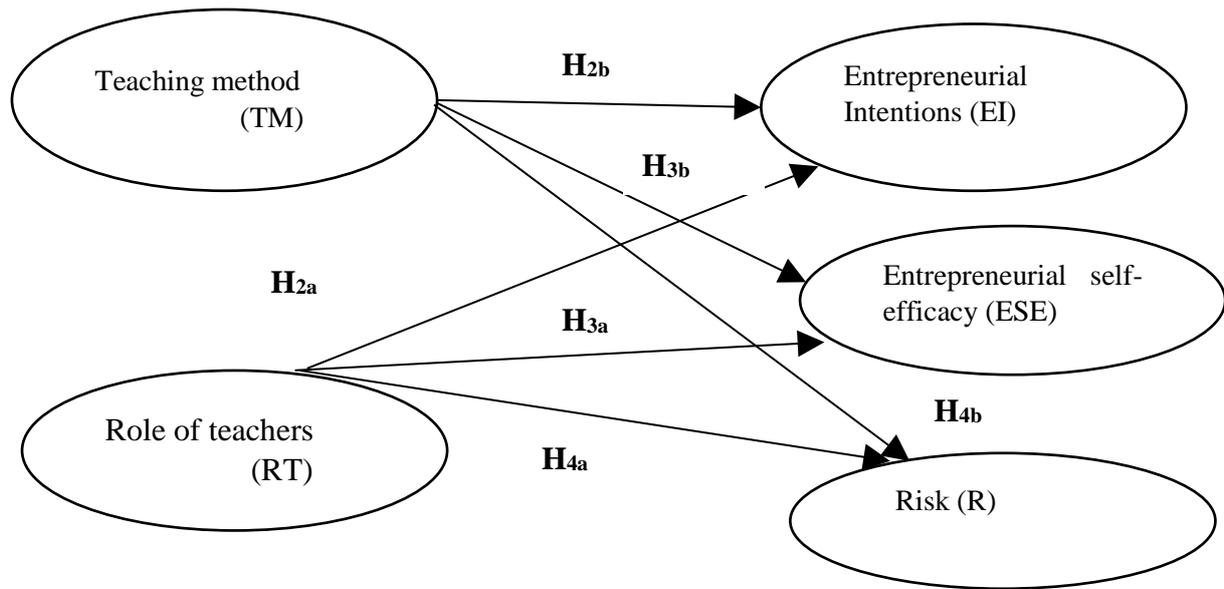


Figure 7 Visualization of Hypotheses 1a – 3b

2.5.6 Mediating role of ESE and risk perceptions in EE-EI relationships

In addition to direct effects of EE on EI, ESE and risk perceptions, we can see signs of more complex relationships between these variables. Number of studies (Boyd & Vozikis, 1994; Kickul, Gundry, Barbosa, & Whitcanack, 2009; McGee et al., 2009; Sequeira et al., 2007; Zhao et al., 2005) found strong relationships between ESE and EI. Other studies found that risk perception is strongly related to EI see (Barbosa et al., 2007; Nishantha, 2009; Stewart Jr & Roth, 2001; Weber, Blais, & Betz, 2002). Thus, we might hypothesize that entrepreneurial education influence intentions both directly, but also through self-efficacy and risk perceptions.

Mediation (also called as *indirect effect*) was introduced and applied first in psychology by Judd & Kenny (1981) which was then adapted and developed by Baron and Kenny (1986) in the statistical field. It is said to occur “...when the causal effect of an independent variable (X) on a dependent variable (Y) is transmitted by a mediator (M). In other words, X affects Y because X affects M, and M, in turn, affects Y...” (Preacher, Rucker, & Hayes, 2007 p.186). Specifically, a *mediator* is the variable that explains how much relationship that exist between a predictor and an outcome (Baron & Kenny, 1986; Holmbeck, 1997)

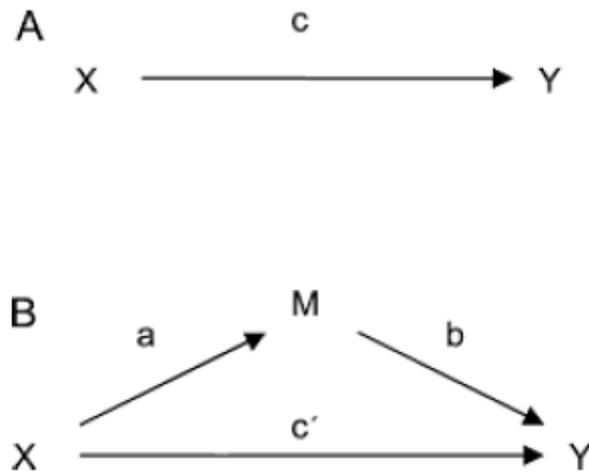


Figure 8 The mediation model requirements based on Baron & Kenny's (1986) method. A: The direct effect. B: The mediation model. (Source: Mallinckrodt, Abraham, Wei, & Russell, 2006)

The mediation model shown in figure 8 incorporates a causal approach which is characterized by a path model. In diagram A, the direct effect allows us to examine by “what means” the independent variable (X) (e.g., RT and TM) exerts its effect on dependent variable (Y) (e.g., EI and R), and the total effect is represented by path c in the absence of variable M (e.g., ESE). Center to our study is the mediation model (diagram B) where a denotes the unstandardized slope coefficient of M when regressed on independent variable (X). While b and c' represents the conditional coefficients of dependent variable (Y) when regressed on M and independent variable (X), respectively. The indirect effect is normally quantified as $c - c'$ which is just typically equivalent to ab (MacKinnon, Warsi, & Dwyer, 1995; Preacher et al., 2007).

The above mentioned model is constructed by means of 3 equation methods below which generates 4 important coefficients (also known as paths):

$$\hat{Y} = i_1 + cX \quad (1)$$

$$\hat{M} = i_2 + aX \quad (2)$$

$$\hat{Y} = i_3 + c'X + bM \quad (3)$$

According to this model, Baron and Kenny (1986) claimed that mediation must be fulfilled with three necessary conditions: First, the relationship between $X \rightarrow M$ is significant (path a). Second, the predictability power of $M \rightarrow Y$ is significant (path b) and lastly, the relationship

between $X \rightarrow Y$ after controlling for the mediator M (e.g., which shows the direct effect), is not anymore significant (path c'). In terms of indirect effect, described as the effect of $X \rightarrow Y$ via M , Baron and Kenny (1986) adopted the Sobel tests (1982) measurement approach. This approach includes multiplication of path a (from $X \rightarrow M$) and path b (from $M \rightarrow Y$). Below is the equation for indirect effect using Sobel's approach (1982).

$$z = \frac{a \times b}{\sqrt{b^2 s_a^2 + a^2 s_b^2}} \tag{4}$$

Baron and Kenny (1986) posited two possible mediation types which can occur when the relationship between $X \rightarrow Y$ is significant: full mediation and partial mediation. Full mediation takes place when the direct effect (patch c) equals to zero. While partial mediation happens when there is coexistence between direct and indirect effects.

As previous studies show, there might be mediating effects of ESE and risk on education-intention relationships. If this is the case, ESE and risk will lower the direct effects of EE on EI. Based from this, the following hypotheses are made:

Hypothesis 5a: Role of teachers' effect on EI is mediated by ESE.

Hypothesis 5b: Teaching Methods' effect on EI is mediated by ESE.

Hypothesis 6a: Role of teachers' effect on Risk is mediated by ESE.

Hypothesis 6b: Teaching Methods' effect on Risk is mediated by ESE.

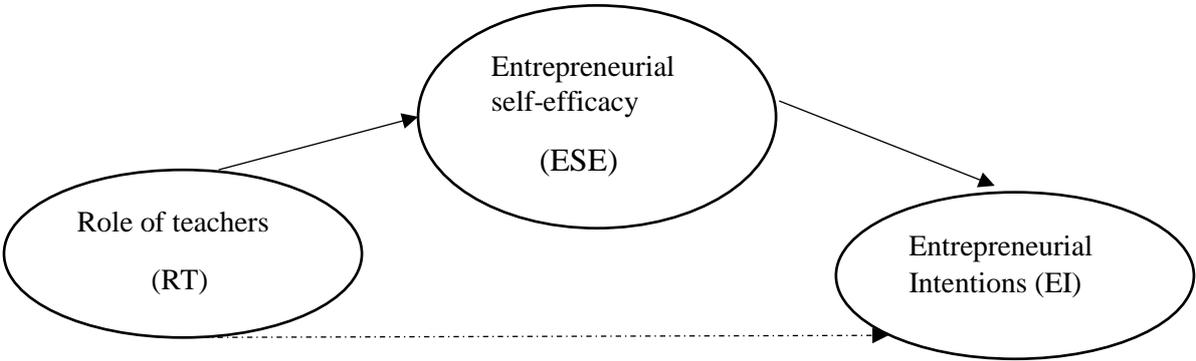


Figure 9 Visualization of Hypothesis 5a

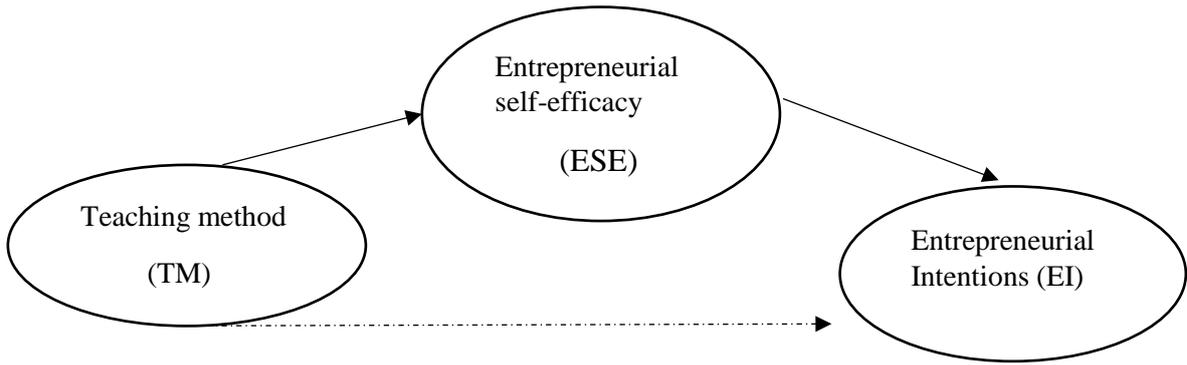


Figure 10 Visualization of Hypothesis 5b

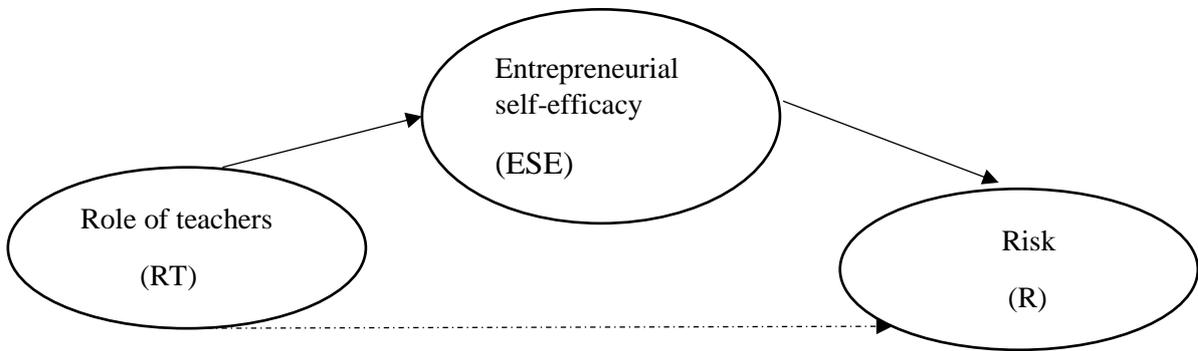


Figure 11 Visualization of Hypothesis 6a

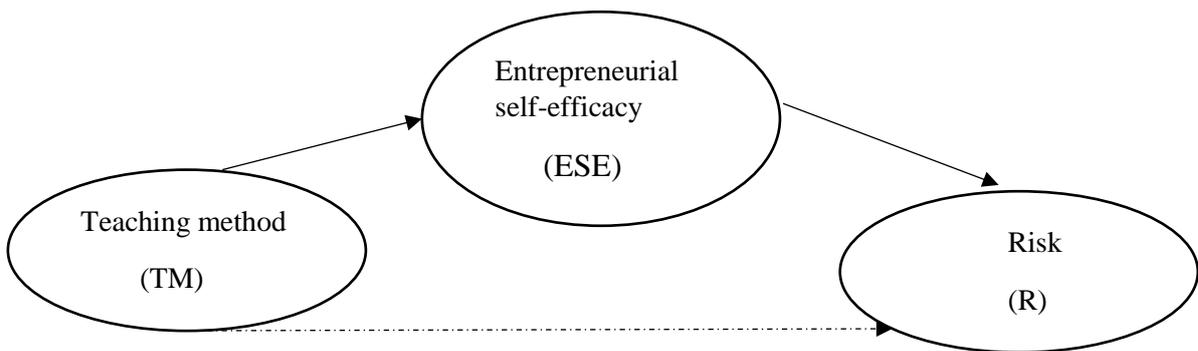


Figure 12 Visualization of Hypothesis 6b

Studying the mediating effect of ESE will be of interest knowing that most of the studies only examined on how SE predicts performance but not taking consideration the other way round (Hwang, Choi, Lee, Culver, & Hutchison, 2016).

3 METHODOLOGY

3.4 Research Philosophy and Design

Research methodology is defined as a procedural framework in conducting research (Dan Remenyi & Williams, 1998; D Remenyi, Williams, Money, & Swartz, 1998). There are two different approaches for research philosophy: Positivism (quantitative) and Phenomenology (qualitative). The difference between these two approaches lies on the concepts and methods used. Positivism uses a quantitative and experimental approach in testing hypotheses (Amaratunga, Baldry, Sarshar, & Newton, 2002). Fundamental to this method is the causal explanation and fundamental laws of different elements in order to make an analysis out of the hypotheses made. On the other hand, phenomenological method uses qualitative and natural approach in generating hypotheses. Central to this approach is to comprehend and explain different phenomena instead of searching for external causes and or fundamental laws (Easterby-Smith & Thorpe, 1991; D Remenyi et al., 1998). Listed on the table 3 below is a comparison of strengths and weaknesses between these two approaches.

Table 3 Strengths and Weaknesses between Positivism & Phenomenological Approach

Theme	Strengths	Weaknesses
Positivist (quantitative paradigm)	They can provide wide coverage of the range of situations They can be fast and economical Where statistics are aggregated from large samples, they may be of considerable relevance to policy decisions	The methods used tend to be rather inflexible and artificial They are not very effective in understanding processes or the significance that people attach to actions They are not very helpful in generating theories Because they focus on what is, or what has been recently, they make it hard for policy makers to infer what changes and actions should take place in the future
Phenomenological (qualitative paradigm)	Data-gathering methods seen more as natural than artificial Ability to look at change processes over time Ability to understand people's meaning Ability to adjust to new issues and ideas as they emerge Contribute to theory generation	Data collection can be tedious and require more resources Analysis and interpretation of data may be more difficult Harder to control the pace, progress and end-points of research process Policy makers may give low credibility to results from qualitative approach

Source: (Easterby-Smith, 1991 cited by Amaratunga et al., 2002 p.20)

According to Neuman & Kreuger (2003) quantitative research is appropriate for data's that comes in numbers. It assesses research problem via statistical, mathematical or computational techniques. It has more systematic and scientific design which able to test the causal relationship between the variables (Creswell, 2013). This approach is suitable especially if the research problem is aimed to analyse factors that influence an outcome (dependent variable) or in testing hypotheses (Creswell, 2013; Maxwell & Delaney, 2004). From the given principles, quantitative research properly fits for our thesis.

First objective of our study is to test whether participation in an entrepreneurship course positively affects EI, ESE and whether participation in entrepreneurship course reduces participants' risk-perceptions. Secondly, we aim to examine the role of teachers and teaching methods on its influence on ESE, EI, and risk. Third, we try to analyze the mediating role of ESE and risk-perceptions on EE → EI relationships. In order for us to address the objectives of our study, it was necessary for us to conduct a survey instrument through the use of questionnaires survey. Numerical data are gathered in order to determine the relationship among specific variables.

3.5 Data Collection/Sample

Various researchers have examined the appropriate methods in choosing the right sample size (Sekaran, 2006; Zikmund, 2003). Small sample size comprise of a population of $n \leq 30$ which is too small to be accepted, while a survey having a population of $n \geq 100$ is an accepted sample size once the population is large (Sekaran, 2006).

Our research survey is conducted based on the responses collected from the participants of Skapes' entrepreneurial training course. Two sets of survey questionnaires have been utilized: long and short survey respectively. In the long survey, it was more focused on the quality of EE teaching methods used by Skape along with the role of teachers and how all these variables influence students' ESE, EI & risk. Participants of the program were Skapes' students who attended on one or more entrepreneurship courses from 2007 – 2017. After approval of the research design from Norwegian body responsible for confidentiality and ethics of the research ("Datatilsynet"), survey was distributed to respondents. Survey questionnaires were sent to 3,760 e-mail addresses registered in Skape database using survey monkey program. There were a total of 560 responses collected. To reduce survey errors and bias results, samples which are incomplete and respondents having the same I.P. address are excluded which gave us a total of 330 usable questionnaires, giving us a response rate of 8.8%

While in the short survey, the focus was different. It was designed to investigate changes in EI, ESE and risk-taking propensity during the teaching course. Only students who were enrolled in Skape start-up course (“etablererkurs”) from February 2017 up to May 2017 were asked to fill out questionnaires at the beginning (ex-ante) and at the end (ex-post) of their entrepreneurship courses. The reason for this is that “etablererkurs” has the longest duration (total of 42 hours) of all Skapes’ entrepreneurial training courses. Our questionnaire was distributed anonymously and coded with numbers in order to match the post-questionnaires to the pre-questionnaires. Questionnaires were handed and collected manually with the help of Skape manager. In time period 1, we collected a total of 42 usable responses. While in time period two, only 21 matched responses were collected giving us a response rate of 47.6%.

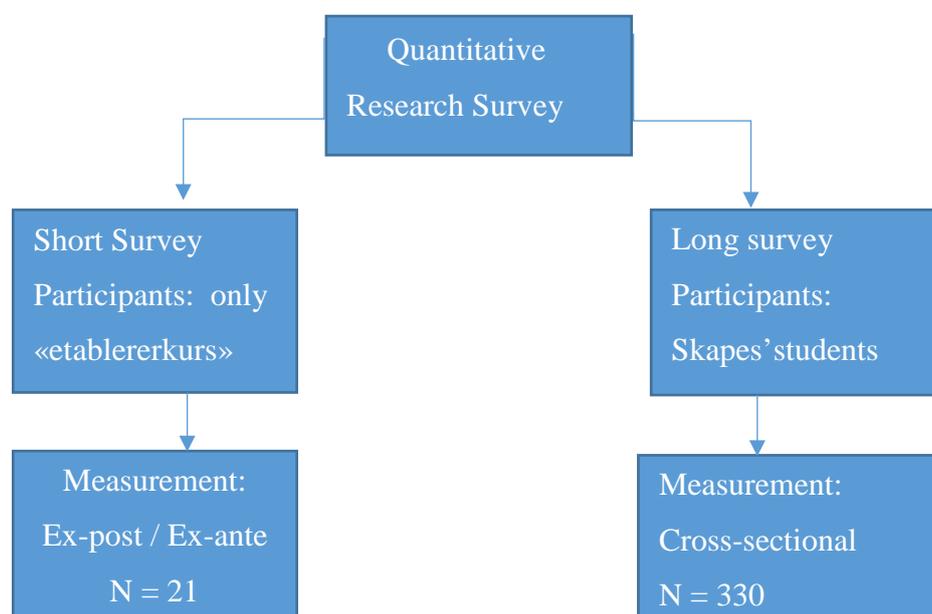


Figure 13 Data Collection Technique (Source: Own Contribution)

3.6 Measurement

In this section we described first the measurements used in short survey and afterwards we moved to measurements of long survey.

3.3.1 Short Survey

In this section, we describe first the measures used in dependent variables (e.g. EI, ESE, and risk) and then we moved to the control variables

Dependent Variables

Entrepreneurial Intention

In this survey, we utilized 2 items on intention scale based from the work of Liñán & Chen (2009) and Autio et al. (2001). The first item include “I am determined to create a firm in the future” (Liñán & Chen, 2009). Respondents were asked on a 7-point Likert scale (1 = totally

disagree, 7 = totally agree) into which extent they disagree or agree the statement. The second item was originally from Autio et al. (2001) used in measuring intentions of Russian students. The item was, “If you could choose between being self-employed and being employed by someone, what would you prefer”? Respondents were again asked on a 7-point Likert scale to their degree of preference ranging from 1 = would prefer to be employed by someone, to 7 = would prefer to be self-employed.

Entrepreneurial Self-Efficacy

Based on the literature review of (Barbosa et al., 2007), we adopted 13 ESE items from different scholars and categorized them in three different constructs: OISE, MSE, & RSE. Respondents were asked in all items to indicate their extent of disagreement/agreement of the statements on a 7-point Likert scale from 1 = totally disagree up to 7 = totally agree.

The *OISE scale* were composed of 4 items taken mainly from the works of (Jung, Ehrlich, De Noble, & Baik, 2001) and (Kolvereid & Isaksen, 2006). The items were:

- I can see new market opportunities for new products/services
- I can discover new ways to improve existing products/services
- I can create products that fulfill customers' unmet needs
- I can develop new business ideas

The *MSE scale* were composed of 5 items significantly related to the items developed by Anna et al. (2000) and Kolvereid & Isaksen (2006). Proposed items were:

- I can control business cost
- I can write a formal business plan
- I can identify potential sources of funding for investments
- I can establish position in product markets
- I can manage a small business

The *RSE scale* includes 4 items related from researches of Chen et al., (1998) and Jung et al. (2001). Items included were:

- I can inspire others to believe on my vision & plans for new business
- I can find and develop favorable relationships with key people
- I can articulate visions and values in an organization
- I can formulate activities to make use of new opportunities

Risk

Risk was measured in reference to 3 items based from researches of Chen et al. (1998) and DeNoble et al. (1999). Modifications were made to appropriately fit our survey questionnaire to Skapes' participants. Using again a 7-point assessment scale (1 = totally disagree, 7 = totally agree) respondents were asked to indicate their level of disagreement/agreement with the following statements stated below:

- Starting a new business is very risky
- There is big uncertainty on how well the business will perform in the market
- Total calculated risk of establishing a business is big

Control variables

The respondents were asked to provide background information on their gender, age, educational level, whether or not they were born in Norway, whether or not they received welfare benefits from NAV, and whether or not they received welfare benefits during business establishment. They were also asked to give information on their current employment status, length of their job experienced and prior entrepreneurial exposure.

Questions on entrepreneurial exposure consists of 2 items which are slightly modified based from previous researches of BarNir, Watson, & Hutchins (2011), Krueger (1993) and Liñán, Urbano, & Guerrero (2011). The items included were: *Is your current business idea related to your job experienced?* (Yes/No); *Have you ever started or involved in any start-up activities?* (Yes/No). Role Models were operationalized through the following question: *Has any of your family members/relatives been an independent business owner?* (Yes/No).

3.3.2 Long Survey

In this section, we present first the **dependent variables**, EI, ESE and risk. We then move forward to **independent variables** which are Teaching Methods and Role of Teachers. At the end, we present the **control variables** used.

Dependent variables

Entrepreneurial Intention (EI)

EI was measured using only 1 item from the intention scales adapted from Krueger et al. (2000) which was again slightly modified. The item was "In what degree has the support you received from Skape have helped you to increase your intention to start a business". Respondents were asked on a 5-point Likert scale ranging from 1 = very low to 5 = very high in terms of their intention to start and run a business.

Entrepreneurial self-efficacy (ESE)

ESE was measured using 6 items self-assessment scale. The items were categorized into three different constructs: OISE, MSE, RSE (Barbosa et al., 2007). But due to limited time-constraint, all 6 items were loaded only on one factor (e.g. ESE) when we performed the factor analysis. Items on this scale described the students competencies related to venture formation, creation and business development. Questions were adapted from previous work of different authors. Believing that it is important for us to utilize measures that are appropriate and could be comprehended easily by Skapes' students, we decided to slightly modify and reduced the measures. Most of the 6-item measure used in this study widely relates to the ESE measures of Anna, Chandler, Jansen, & Mero (2000), Chen et al. (1998), De Noble et al. (1999) and Kolvereid & Isaksen (2006). Respondents were asked in all items to indicate their degree level of ESE after attending Skape course(s) on a 5-point Likert scale ranging from 1 = very low to 5 = very high.

The items included on *ESE* were:

- To identify new market opportunities for products/services. (OISE)
- To get financing. (MSE)
- To make formal business plan. (MSE)
- To lead & administrate a small business. (MSE)
- To find resources for business. (RSE)
- To create network. (RSE)

We applied principal component factor analysis with varimax rotation in performing the task. All 6 items resulted an Eigenvalue of 3.862, accounting for 64.4% of the variance (see table4). The Cronbach alpha reliability measure for this coefficient is 0.884

Table 4 Principal Component Analysis with Varimax rotation for ESE

Items	Component	Communalities
To get financing	,894	,394
To create network	,884	,681
To identify new market opportunities for products/services	,825	,781
To make formal business plan	,784	,615
To find resources for business	,769	,800
To lead and administrate a small business	,627	,592
Eigenvalue	3,862	
Percent variance explained	64,365	
Cumulative percent variance explained	64,365	
Cronbach's alpha	0.884	

Component loadings 0.4 or smaller are suppressed. KMO=0.876, Bartlett's Test of Sphericity Approx. Chi-Square 573,604; df=15; Sig 0.000

Originally there were 7 items that belongs to ESE scale on our survey questionnaire (see Appendix). However, only six variables were included in the final scale in order to obtain better divergent validity between dependent and independent variables. In analysis part of our thesis, we will present descriptive statistics for all original variables.

Risk

The scale measurement for risk composed of 1 item adapted from Kolvereid & Isaksen, (2006). The item included was “In what degree has the support you received from Skape have helped you to understand risk associated with business start-up”. Again respondents were asked to indicate their degree of understanding on risk-taking propensity using a 5-point Likert scale from 1 = very low to 5= very high.

Independent Variables

Teaching Methods (TM)

As stated earlier in the literature review, there are seven components of educational measures which are particularly effective in influencing students' SE and thus, affects entrepreneurial behavior (Mueller, 2011). These components include practical knowledge, business planning, role models, entrepreneurial network, student orientation, explorative elements and feedback. Based on these components we created TM scales consisting of 9 items (see Appendix). Scales developed was with respect to previous researches done in order to evaluate the effectiveness of Skapes' SEE (e.g., TM). Out of the 9 items created, we used only 5 items presented below to ensure divergent validity with other dependent variables. In order to measure the TM provided by Skape, we asked the respondents to rate the quality of TM using a five-point Likert scale (1 = very low & 5 = very high).

The items developed were:

- Gave access to the net with the course materials taught.
- Gave opportunity to participate in classroom learning activities.
- Gave information about useful services and portals (e.g. accounting programs, marketing tools).
- Gave opportunity to work in team
- Gave opportunity to talk to entrepreneurs that were invited to lectures.

(Sources: Chen et al., 1998; Honig, 2004; Kirby, 2006; Kuratko, 2003; Lee et al., 2005)

Role of Teachers (RT)

RT were measured by asking the respondents to rate the creativeness and innovativeness of teachers on a 5-point Likert scale (1 = very bad, 5 = very good). We developed scale composed of 5 items. The items include:

- Teachers provide the latest & updated course materials
- Practical implementation of the acquired knowledge
- Professionalism & inspiring teaching method of the teachers
- Innovative & creative form of learning
- Inspirational way of teaching from the course lecturers

(Source: Allan Gibb, 2002; Katz, 2003; Kuratko, 2005; Peterman & Kennedy, 2003; Sánchez, 2013; Souitaris et al., 2007)

Table 5 Principal Components Analysis for RT & TM

	Rotated Component Matrix^a		Communalities
	Component 1	Component 2	
Inspirational way of teaching from the course lecturers	,904		,879
Professionalism & inspiring teaching method of the teachers	,848		,771
Innovative & creative form of learning	,826		,707
Teachers provide the latest & updated course materials	,811		,769
Practical implementation of acquired knowledge	,770		,701
Gave opportunity to work in team		,813	,637
Gave access to the net with the course materials taught		,749	,759
Gave opportunity to talk to entrepreneurs that were invited to lectures		,748	,621
Gave information about useful services and portals (e.g. accounting programs, marketing tools)		,730	,566
Gave opportunity to participate in classroom learning activities	,401	,686	,631
Eigenvalue	5,654	1,386	
Percent of variance explained	56,539	13,856	
Cumulative percent of variance explained	56,539	70,398	
Cronbach's alpha	0,851	0,922	

Component loadings 0.4 or smaller are suppressed. KMO=0,903, Bartlett's Test of Sphericity Approx. Chi-Square 882,672; df=45, Sig. 000

Control variables

Participants were asked to provide background information on their age, gender, educational level, whether or not they received welfare benefits from NAV, and whether or not they had prior entrepreneurial exposure. Item on prior entrepreneurial exposure was adapted from (Liñán & Chen, 2009). The item was, “Has any of your family members/relatives been an independent business owner.” Below are procedure on how we measure these variables.

Age was measured as continuous variable.

Gender was measured as dichotomous variable with 1= male and 0 = female

Educational level was measured as dichotomous variable (1=less than high school, 2=high school, 3=bachelor, 4=master)

Welfare Benefits from NAV is measured as dichotomous variable (1=yes, 2=no)

Prior entrepreneurial exposure was measured as dichotomous variable (1=yes, 2=no)

4 DATA ANALYSES AND RESULTS

In this section, we discussed first the analysis of short survey. Afterwards, the analysis of long survey will follow.

4.4 Short Survey

In short survey, our objective is to test whether participation in an entrepreneurial course positively affects EI, and ESE. We also examine whether participation in an entrepreneurial course reduce risk-perception of participants.

First, we will present descriptive analysis of the variables. Secondly, we will discuss difference-in difference test

4.1.1 Descriptive Analysis

In table 6, we present the results of descriptive analyses for control variables and other variables included on our short survey.

Table 6 Descriptive Statistic

Descriptive Statistics for Sample (n=42)	Percent
Gender	
Male	44.2
Female	51.2
Age	
24-31	14.8
32-40	36.6
42-60	48.6
Educational Level	
Less than High School	14
High School	46.5
Bachelor's Degree	18.6
Master's Degree	11.6
Norway born	
Yes	86.0
No	9.3
Do you receive any welfare benefits from NAV?	
Yes	78
No	22
How long have you received welfare benefits from NAV?	
0	14
1-6 months	16.3
6-12 months	28
12-26 months	30.2
Do you receive welfare benefits for establishment of your own business?	

I do not receive such kind of benefits	60
Yes. Start-up phase	2.3
Yes. Development phase	30.2
Do you currently work part-time or full-time? (min. 20hrs/week)	
Yes	20.9
No	74.4
Do you have work experience?	
Yes, 1-3 years	7.0
Yes, 3-5 years	7.0
Yes, 5-10 years	9.3
Yes, more than 10 years	72.1
Is your current business idea related to your previous job?	
Yes	37.2
No	58.1
Have you ever been engaged in start-up activities?	
Yes	32.6
No	62.8
Has any of your family members/relatives ever been an independent business owner?	
Yes	48.8
No	46.5

Note: We used percent that does not account for missing values.

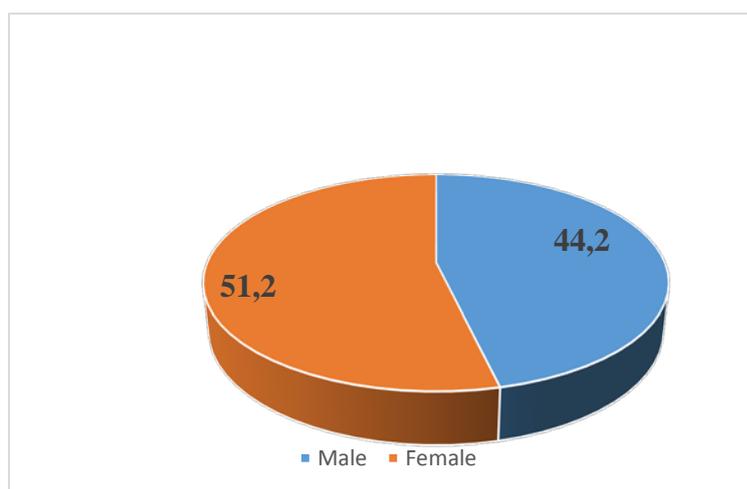


Figure 14 Age & Distribution Percentage

In this survey, the majority of the respondents were female accounting for 51.2%. 36,6 % were at the age of 32-40 and 48,6% were at the age between 42-60. Most of the participants have high school education accounting for 46.5% and 86% were born in Norway. As for welfare benefits from NAV, almost 78% were receiving it and

30% of them are now on their last year of support (12-26 month). With regard to welfare benefits for starting-up their business, 60% claimed that they didn't get such kind of support, 2.3% got it in start-up phase and 30.2% received it in development phase. As for the

employment status, 74.4% of participants who were enrolled in the course are unemployed. At the same time, we can see that mostly of the participants are experienced and have been working for more than 10 years. In terms of entrepreneurial exposure, only 37.2% of the respondents said that their current business idea is related to their previous work and almost 63% were not engaged in any start-up activities. While there was an almost equal rate of respondents who has or hasn't any family members which have been an independent business owner.

Figure 15 shows the percentage of those participants who received welfare benefits from NAV in business establishment.

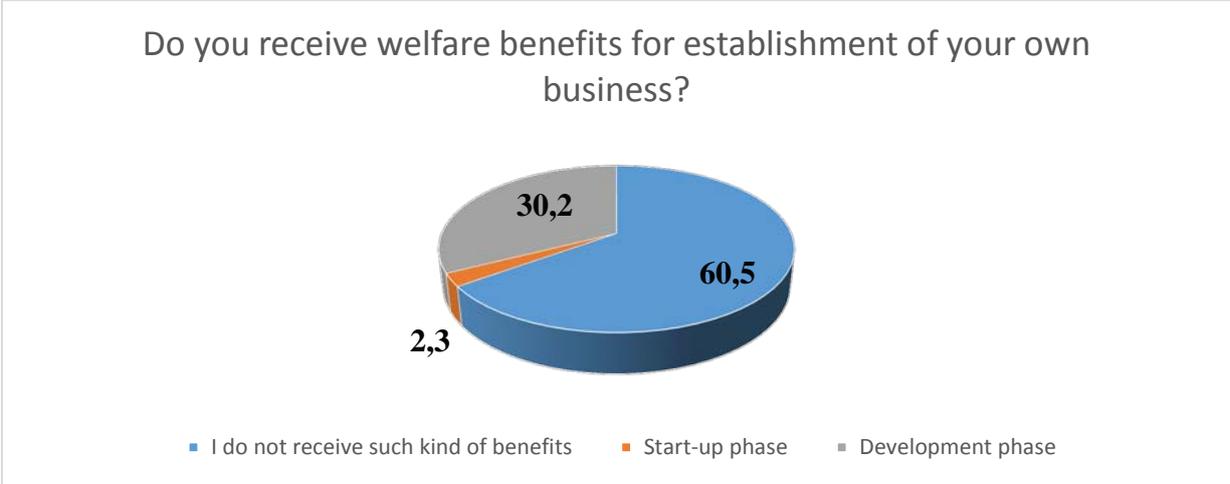


Figure 15 Percentage of participants who received welfare benefits in business establishment

Figure 16 shows the percentage and length of welfare benefits the participants are receiving.

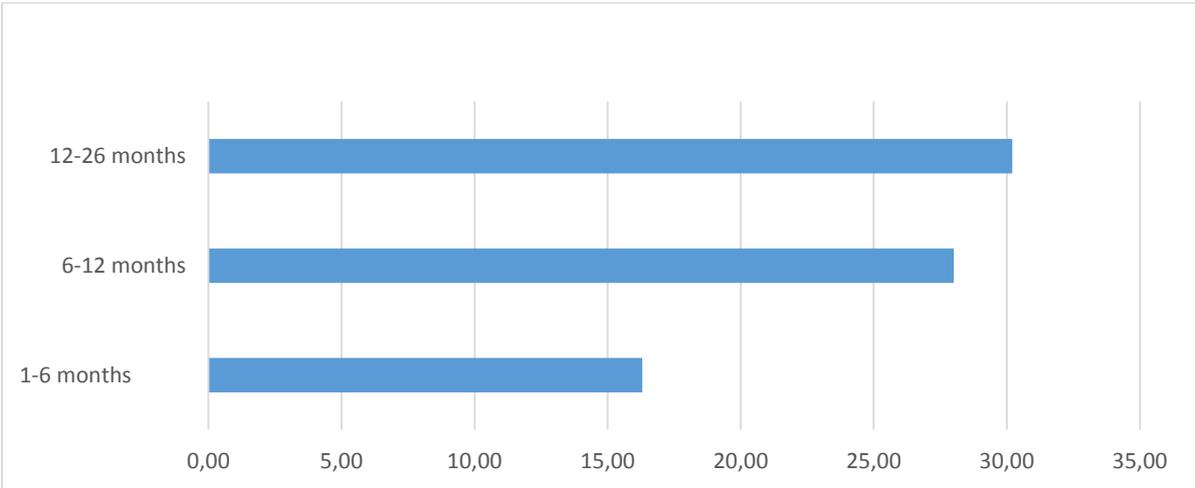


Figure 16 Duration and percentage of participants receiving Welfare Benefits from NAV

In figure 17 we examined the length of work experience as well as the employment status of the participants. Most of them have long work experienced and are unemployed.



Figure 17 Work experience and Employment status

4.1.2 Difference-in-Difference Test

In order to test *H1a*, *H1b*, and *H1c*, we performed difference-in-difference approach. We asked respondents to answer corresponding questions (see table 7) before (Time 1) and after attending the course (Time 2). Out of the 42 respondents who answered the survey questionnaires in the beginning, only 21 matched responses we managed to collect at the end. Due to low number of respondents, we chose only to estimate difference in means of individual variables representing EI, ESE and risk. Hence, the use of non-parametric techniques is highly recommended in our case. Non-parametric techniques do not require normal distributions and it's ideal to use for very small sample size. Results is presented in the table below.

The Wilcoxon Signed Rank Test has been used to test the differences between two dependent groups in Time 1 and Time 2. The difference between the two score is considered statistically significant if the significant level is equal to or less than 0.05 (e.g., 0.04, 0.01) (Pallant, 2013).

In table 7 the results of difference-in-difference test of entrepreneurial intentions, entrepreneurial self-efficacy and risk are presented. Results on EI, ESE and risk are interpreted afterwards

Table 7 Difference and Difference Test of EI, ESE and Risk

	Items	Mean T1	Mean T2	Dif.	Asymp. Sig. (2- tailed)
Entrep. Intentions	I am determined to create a firm in the future	5,66	6,15	0,49	0,572
	If you could choose between being self-employed and being employed by someone, what would you prefer?	5,34	5,71	0,37	0,844
ESE	I can see new market opportunities for new products and services	4,21	5,32	1,11	0,011
	I can formulate activities to make use of new opportunities	4,53	5,47	0,94	0,024
	I can write a formal business plan	4,05	5,42	1,37	0,015
	I can find resources for my business	4,26	5,26	1	0,044
	I can manage a small business	4,53	5,58	1,05	0,022
	I can grow a successful business.	4,32	5,26	0,94	0,031
	I can discover new ways to improve existing products	5,15	5,52	0,37	0,264
	I can control business costs	4,76	5,05	0,29	0,497
	I can create products that fulfill customers' unmet needs	4,73	5,10	0,37	0,269
	I can articulate visions and values in an organizations	5,07	5,15	0,08	0,208
	I can get others to identify with and believe in my vision and plans for new business	4,95	5,10	0,15	0,333
	I can plan a new business	5,15	5,65	0,5	0,114
	I can find and develop favorable relationship with key people	4,49	5,14	0,65	0,211
Risk	Starting a new business is very risky	5,41	5,10	-0,31	0,248
	There is a big uncertainty on how well the business will perform in the market	5,29	5,05	-0,24	0,234
	Total calculated risk of establishing a business is big	5,22	5,24	0,02	0,318

Note. ESE items in bold text are significant.

Entrepreneurial Intentions

The result showed that the participants have strong intentions to start their own business on Time 1 by scoring on average at 5.66 on question 1 and 5.34 on question 2. In Time 2, the participants showed higher scores with a mean of 6.15 and 5.71 compared to Time 1. This means an increase of 0.49 and 0.37 respectively. However, Wilcoxon Signed Rank Test show that this increase is not statistically significant.

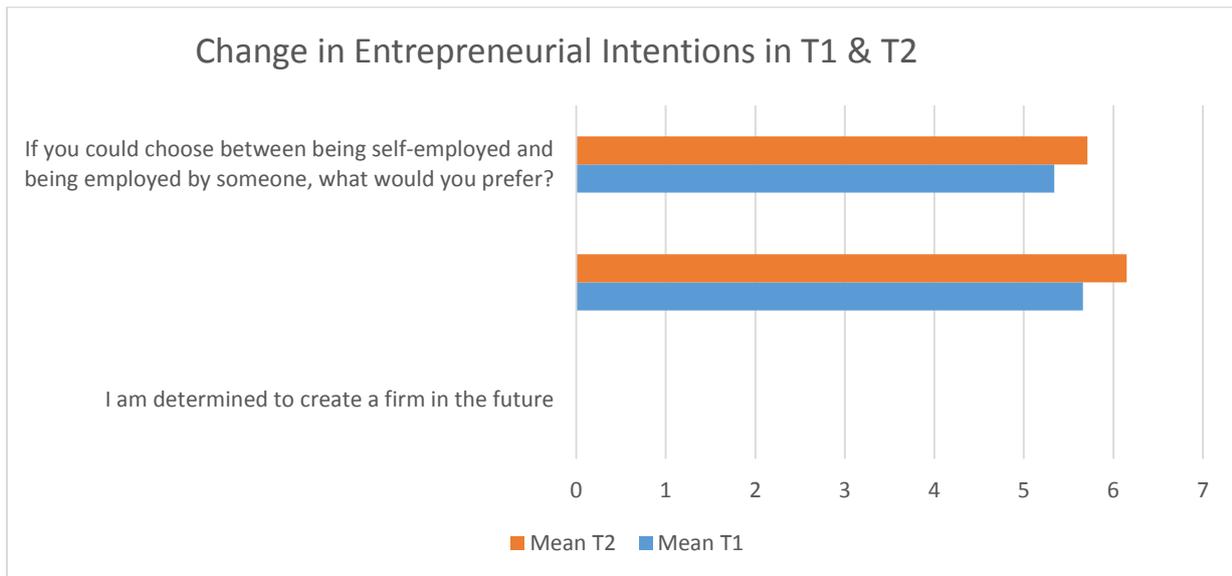


Figure 18 Change in EI in T1 and T2

Entrepreneurial Self-Efficacy

Originally we created 13 items on ESE. However, we observed that not all of them were significant. Only those first 6 items which were **significant** and are shown in **bold text** in table 7. Out of those which were significantly different, items such as, writing a formal business plan, seeing new market opportunities for products & services, and managing a small business were among that received highest score. Visualization of the results are presented on the graph (see figure 19)

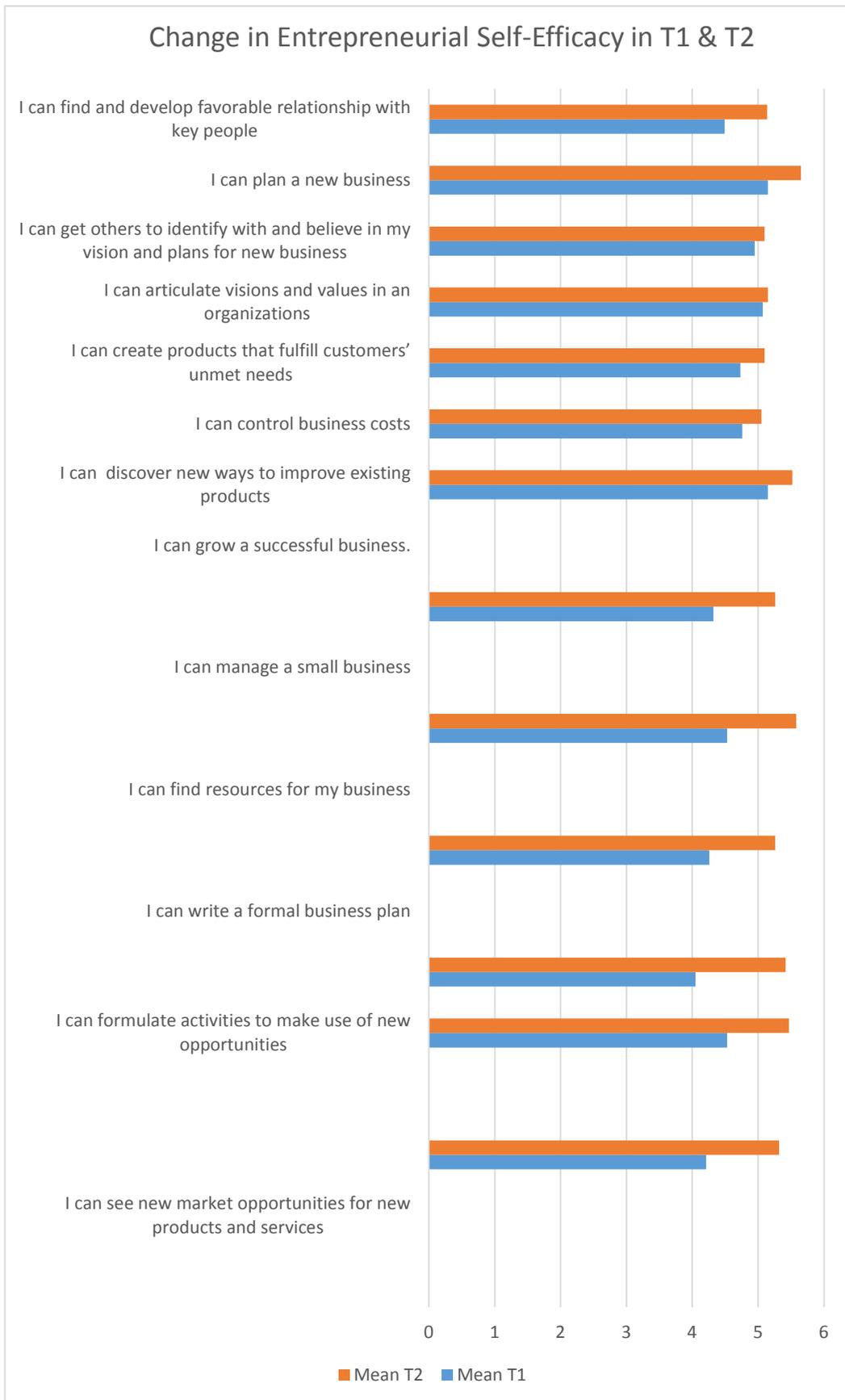


Figure 19 Change in ESE in T1 and T2

Risk

Looking on risk-perception, on Time 1 the respondents show concern about the riskiness of starting a business on their own by scoring on average at 5.41 on question 1, 5.29 on question 2 and 5.22 on question 3. Likewise, participants showed lower scores in terms of riskiness of starting their own business on Time 2 showing an average score of 5.10, 5.05 and 5.24 respectively. Only item, “Total calculated risk on how well the business will perform in the market” showed a very small increase of 0.02. This indicates that on average, the courses have decreased the students’ risk-perceptions about starting their own business. However, result on Wilcoxon Signed Rank Test show that this decrease is not statistically significant.

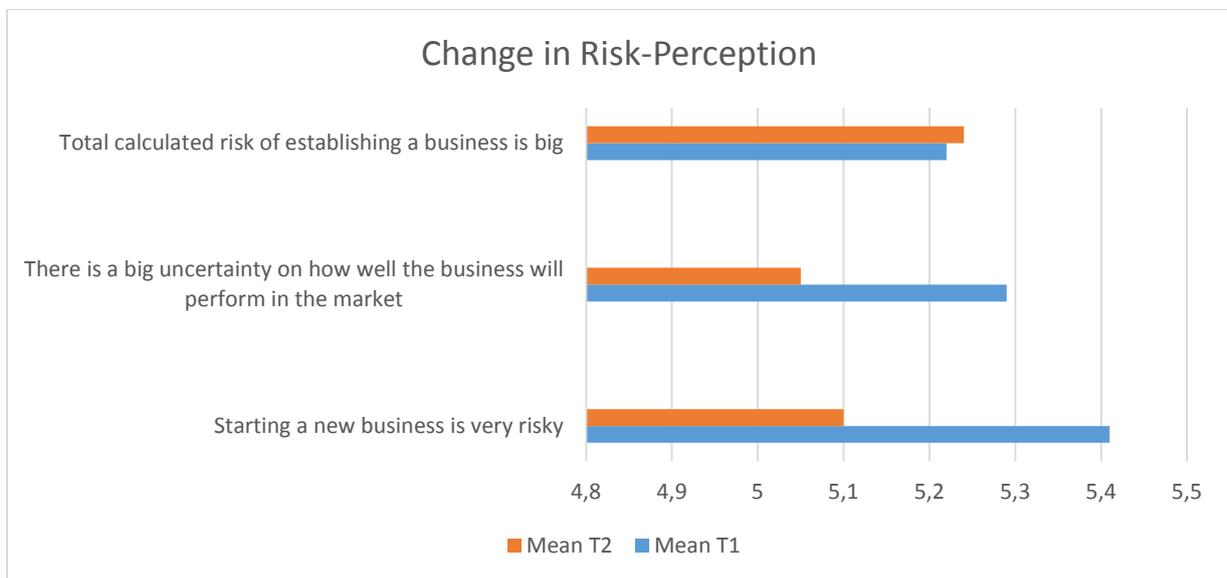


Figure 20 Change in Risk-Perception in T1 and T2

4.1.3 Summary

Table 8 Summary of results for H1a-H1c

Hypothesis 1a:	Participation in entrepreneurship course will positively affect EI.	Not supported
Hypothesis 1b:	Participation in entrepreneurship course will positively affect ESE.	Partly supported
Hypothesis 1c:	Participation in entrepreneurship course will reduce perception of risk.	Not supported

Our findings showed that *H1a* and *H1c* were not supported since no significance were found. However, we still can see an increase in entrepreneurial intentions and decreased in risk. Statistically insignificant result could be due to lower number of respondents. Another explanation that education affect competencies in the first place, and through competencies it also affect intention.

4.5 Long Survey

In this section, we are going to present first descriptive analysis followed by analysis of direct effect of RT and TM on EI, ESE and risk (hypotheses 2a – 4b). Finally, the mediating effect of ESE on our dependent (e.g., RT & TM) and independent variable (e.g., EI & Risk) will be discussed

4.2.1 Descriptive Analysis

In order to get comprehensive information, a survey was initially given to Skape's participants who took part in the courses during the year 2007 up to 2017. As the graph shows, the majority of the respondents are from the year 2016 and 2017 with 134 and 81 respondents respectively. The fewest answers are received from the students who took part in the course at the very beginning (i.e. year 2007, 2008 and 2009). The number of respondents start to increase from year 2010. Based from the results on the graph above, we can conclude that data received from the latest years will give us the most recent information.

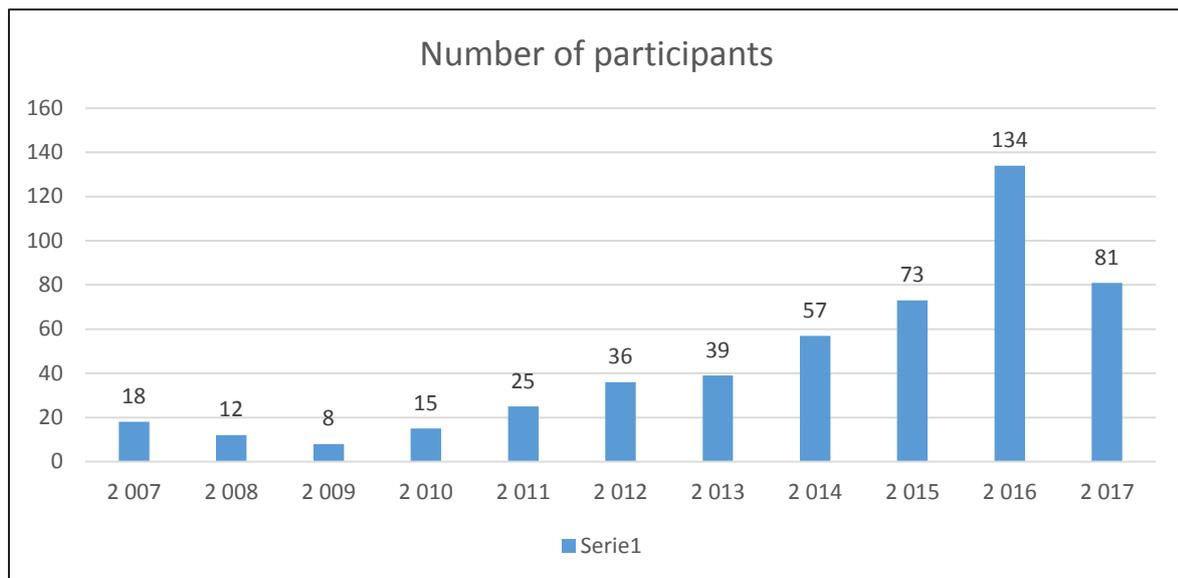


Figure 21 Number of Respondents from 2007-2017

In table 9, we present the results of descriptive analyses for control variables and other variables included on our long survey.

Table 9 Descriptive Analyses

Descriptive Statistics for Sample (n=339)	Percent
Gender	
Male	50.0
Female	50.0
Age	
Under 20 år	0.8
21-25	1.3
26-30	2.8
31-40	14.8
41-50	17.6
51-60	19.3
Above 60	4.3
Educational Level	
Less than High School	9
Fagbrev	10.8
Bachelor's Degree	22.1
Master's Degree	18.3
Norway born	
Yes	51
No	9.5
Do you receive any welfare benefits from NAV?	
Yes	23.9
No	35.9
How long have you received welfare benefits from NAV?	
1-6 months	5.5
6-12 months	6
12-26 months	8.3
More than 2 years	3.8
Do you receive any welfare benefits for establishment of your own business?	
I do not receive such kind of benefits	7.8
Yes. Start-up phase	6.8
Yes. Development phase?	7.8
Is your current business idea related to your previous job experienced?	
Yes	43.7
No	15.3
Has any of your family members/relatives ever been an independent business owner?	
Yes	43.7
No	15.3

Note. Percent used does not account for missing values.

In the long survey 50% of the respondents were men and 50% were women of which mostly is in the aged between 31-60. In terms of education and nationality, the largest number of participants are Norwegians having Bachelor's Degree.

As for welfare benefits from NAV, 24% received such kind of benefits while 36% do not. Out of those who received support from NAV, only 7% got unemployment benefits at the start-up phase, while 8% got it at the development phase. From this, we see that many participants were struggling to have possibility to obtain financial assistance from NAV in terms of business establishment. Many of them were not aware of this kind of support. Looking at respondents' feedback, those who receive assistance were glad that they got such support to develop their business. Moreover, 43.7 % of the respondents stated that their business idea is related to their job experienced and the same percentage of respondents had their relatives as an independent business owner.

In order to identify the degree of entrepreneurial self-efficacy (ESE) the respondents were asked to evaluate different types of competencies that Skape was supposed to provide. Figure 22 shows the different options that the participants had to assess. As can be seen, the main reason for attending the course was to establish own business and develop own professional skills by learning.

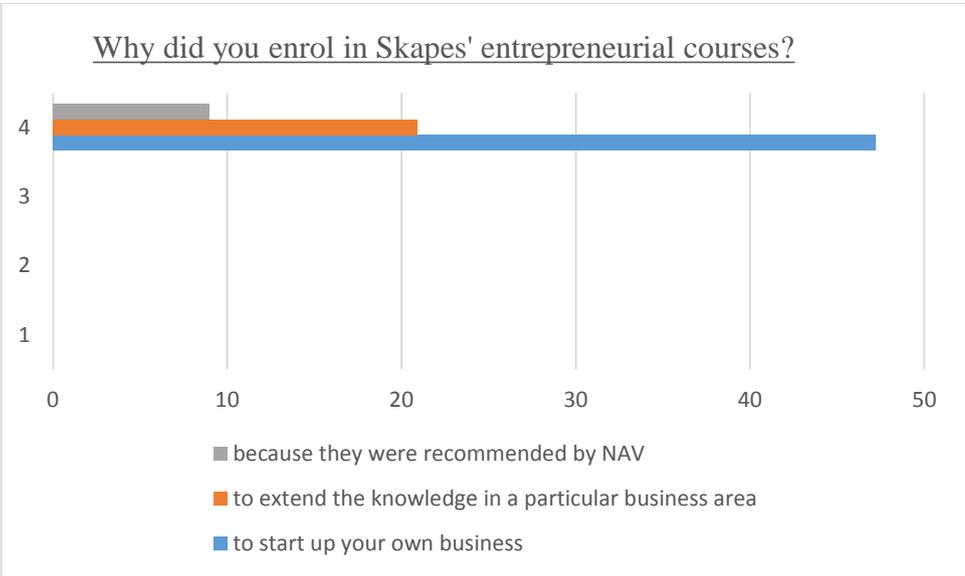


Figure 22 Reason for taking Skapes' entrepreneurial courses

In figure 23, the percentage of male and female respondents at different age group are presented. Male respondents dominate at aged 31-40. While female respondents dominate between aged 41-60.

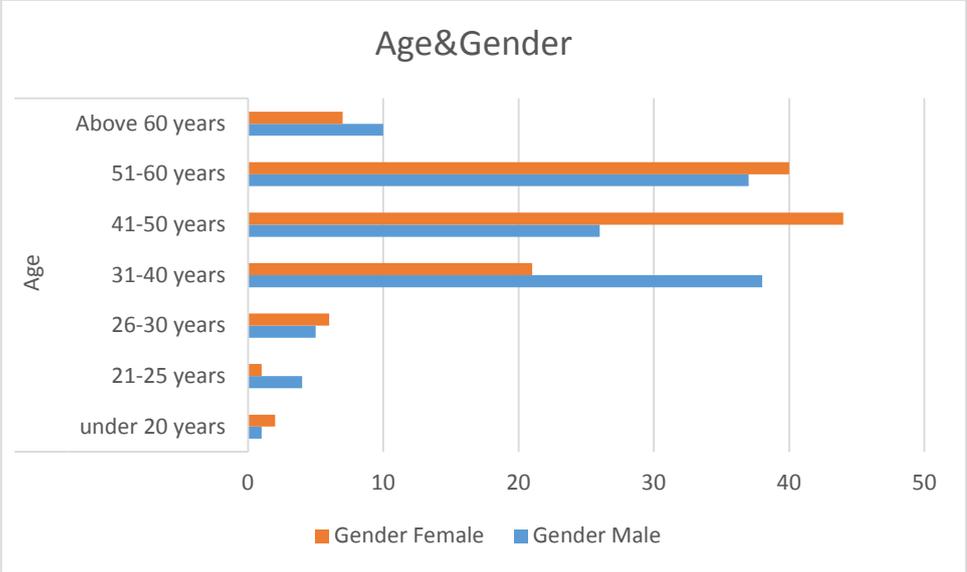


Figure 23 Age and Gender

Relationship between Age, Gender and ESE

Here, we would like to check the relationship between age, gender and ESE. Figure 24, provides us a summary of the distribution of scores for the males and females from different age group. As can be seen, females at 21-25 age group have higher ESE, which means that they are more confident in their ability of starting up new business. Results of our study is in contrast with the research findings of Kourilsky & Walstad (1998) and Marlino & Wilson (2003) whom have acknowledged that teen girls’ intention of engaging in entrepreneurial activity are lower than their counterparts.

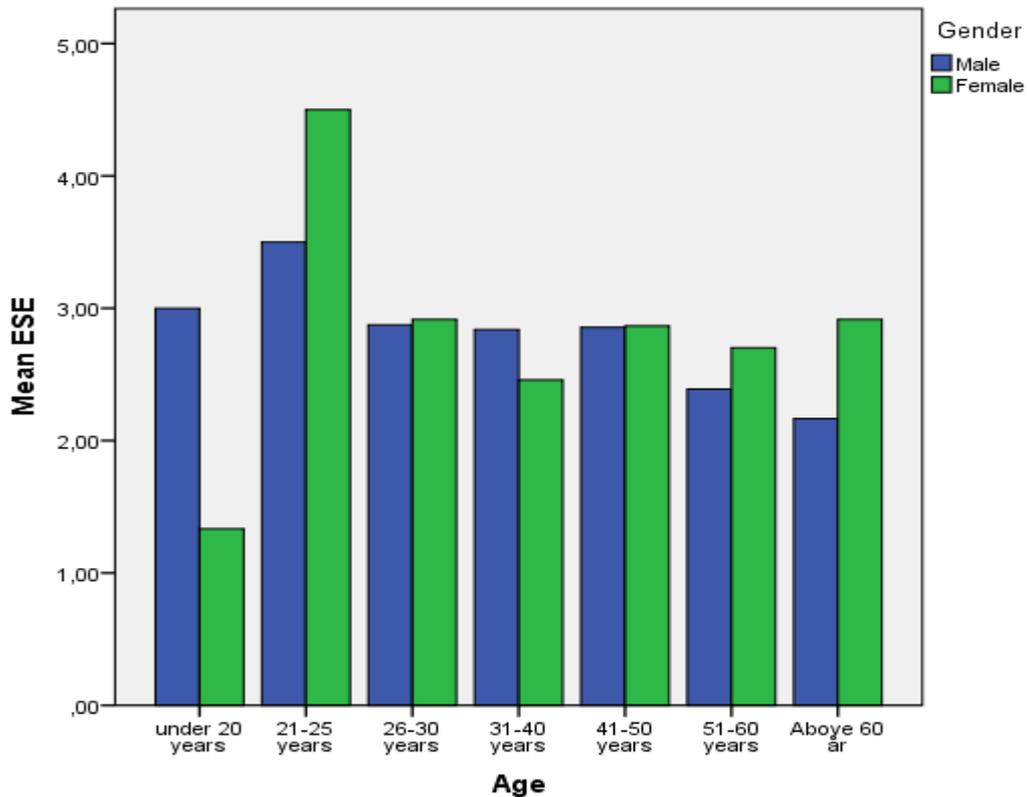


Figure 24 Relationship between education and business establishment

Here, we tried to check whether there is correlation between education and business establishment. Figure25 shows that most of the participants who were able to launch their own business after participating in Skape courses were having higher degree of education.

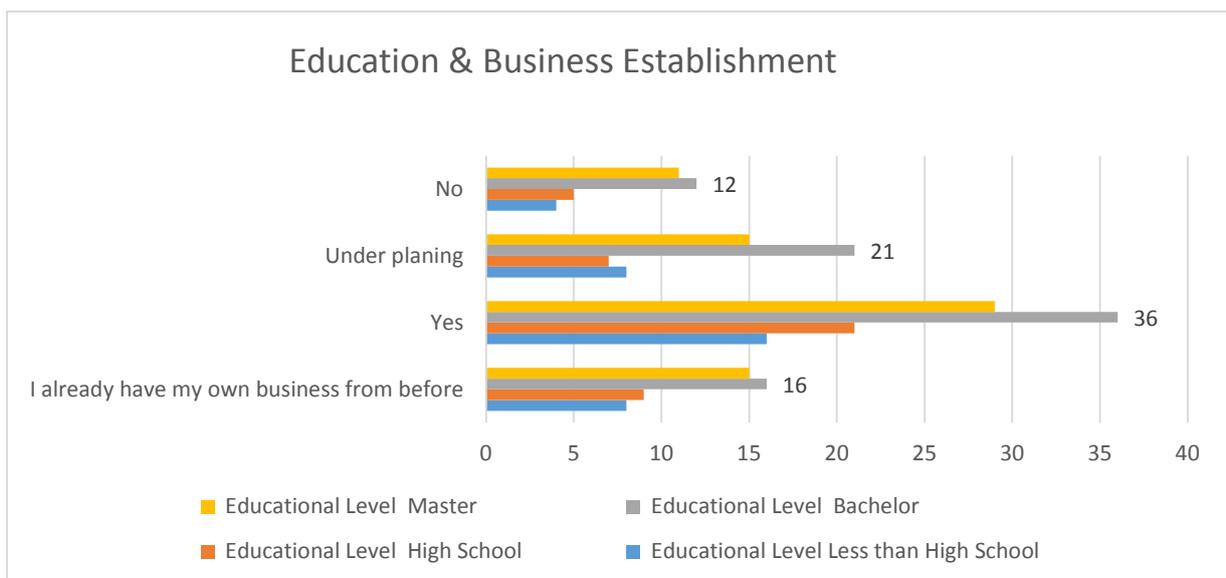


Figure 25 Education and Business Establishment

Relationship between business establishment and welfare benefits from NAV

Here, we examined if there is a relationship between establishing a business and receiving welfare benefits from NAV. Figure 26 suggests that those who didn't receive welfare benefits from NAV have established business after participating the course compared to those who did.

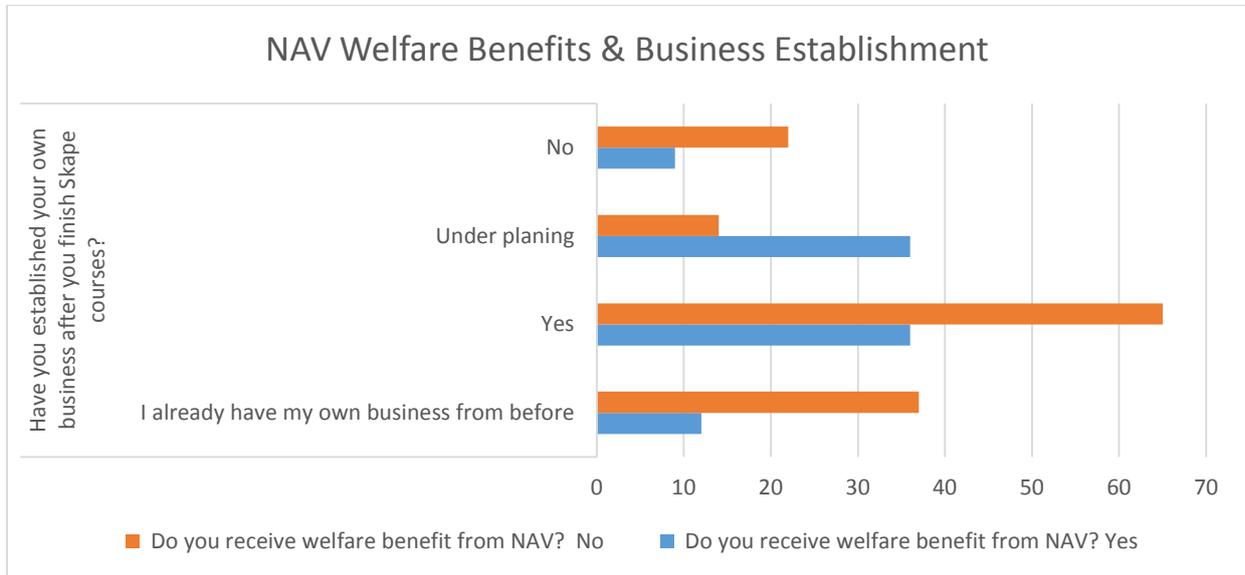


Figure 26 NAV Welfare Benefits and Business Establishment

Reasons for not establishing a business

Here, we tried to examined the reasons for not establishing a business. We can see from figure 27 that other reasons dominates in not establishing a firm. This is followed by either getting a job offer and or running own business was not the right thing.

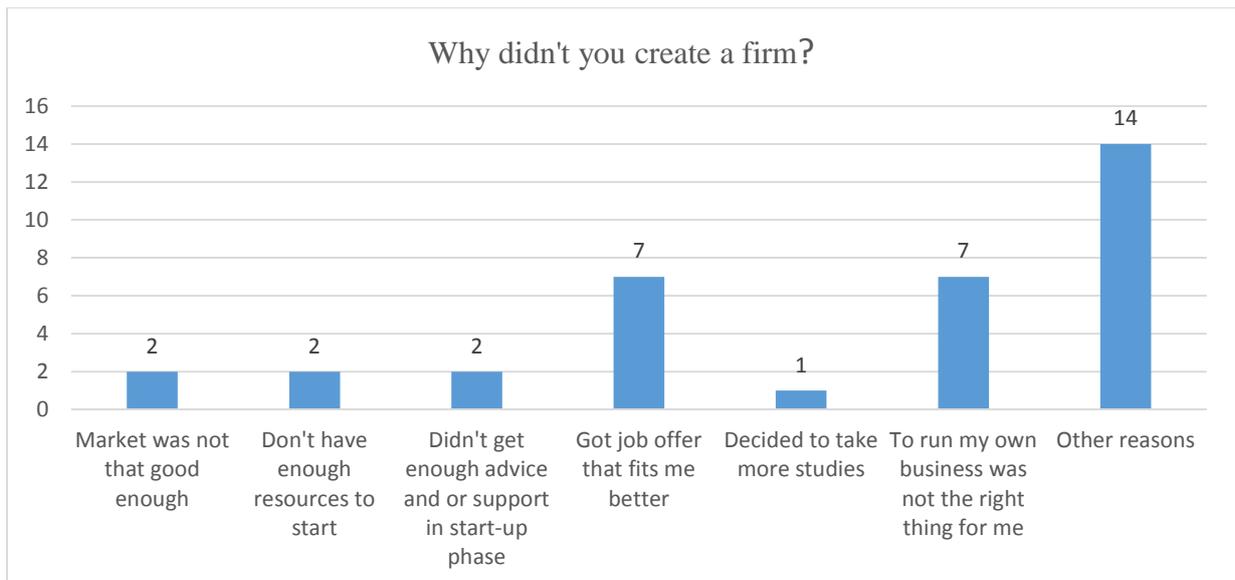


Figure 27 Reason for not establishing a business

4.2.2 Descriptive Analysis of Entrepreneurial Self-Efficacy

In order to identify the degree of ESE the respondents were asked to evaluate different types of competencies that Skape course was supposed to provide. The diagram below shows different options that the participants had to assess. Respondents were asked to provide in what degree has the support they received from Skape helps them to increase their competencies using a 5-point Likert scale (1=very low, 5=ver high).

Scale Measurement Entrepreneurial Self-Efficacy

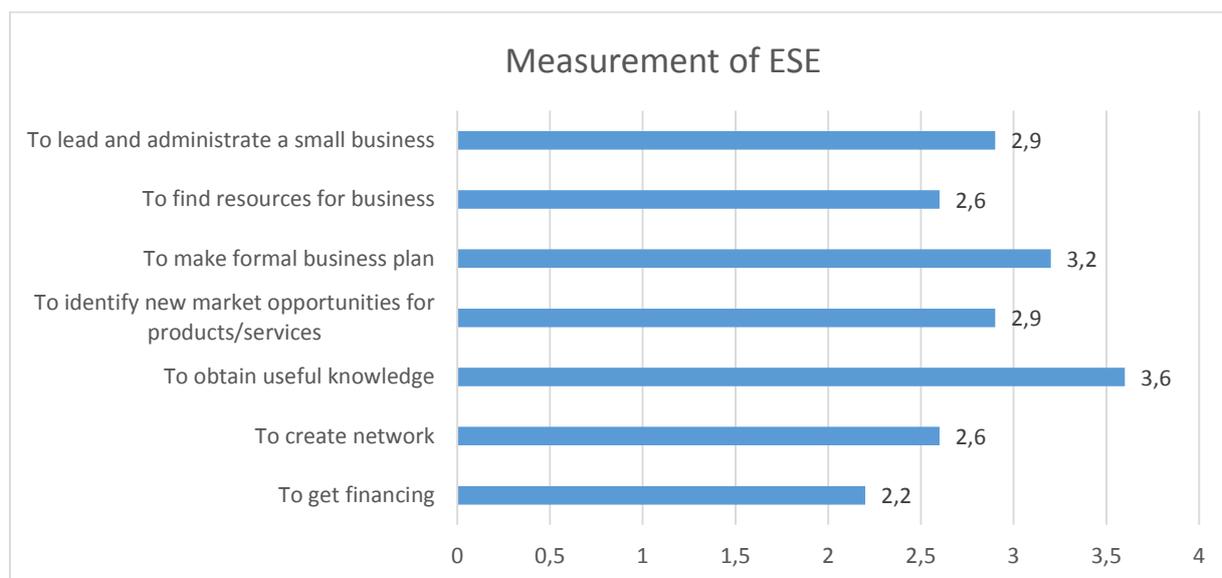


Figure 28 Entrepreneurial Self-Efficacy Measurement

As a result the possibility to obtain useful knowledge and to be able to make a formal business plan got the highest score. According to the reviewed theory, EE should first of all give future entrepreneurs relevant information about the process of starting business (Fayolle & Gailly, 2008). Moreover, being able to make a formal business plan is an important criteria to increase one's level of ESE (e.g. managerial self-efficacy) (Sequeira, Mueller, & McGee, 2007).

At the same time, the ability to get financing got the lowest score. After the course completion the participants were given an opportunity to give their feedback on the overall activities undertaken under the training. The respondents claimed that Skape didn't give the opportunity to connect with potential investors. Likewise, some of the respondents wished to learn more on networking. This can be illustrated by the following comments taken from the survey.

«Sette etablerere i kontakt med investorer, hjelpe til med å få ulike stønader»

(Connect future entrepreneurs with investors and get help with various applications)

«Nye teknisk firma kunne samarbeide med et nytt regnskaps firma»

(New technical firm could cooperate with new accounting firm)

Further, respondents said that they did not get enough assistance in getting financial support. This is represented by the comment below:

«Godt med mye mer støtte rund offentlig støtte (penge) siden dette en a det mest vanskelig spesielt når marked er ikke så trygg på deg som et nytt aktør i marked.»

(Should be good to receive more public monetary financial support knowing that start capital is the most difficult to acquire especially when you are new in an unsecure market)

4.2.3 Descriptive Analysis of Teaching Method

The next step was to measure teaching methods used by Skape. This was done by asking respondents what they learned from the course they have been participating with, using a 5-point Likert scale ranging from 1=very low to 5=very high. The highest score is 3.3 stating that it helped to enhance entrepreneurial knowledge and capabilities within entrepreneurship (see figure 29). While lowest score is 2.1 which is giving access to the net with the course materials taught.

Scale Measurement Teaching Method

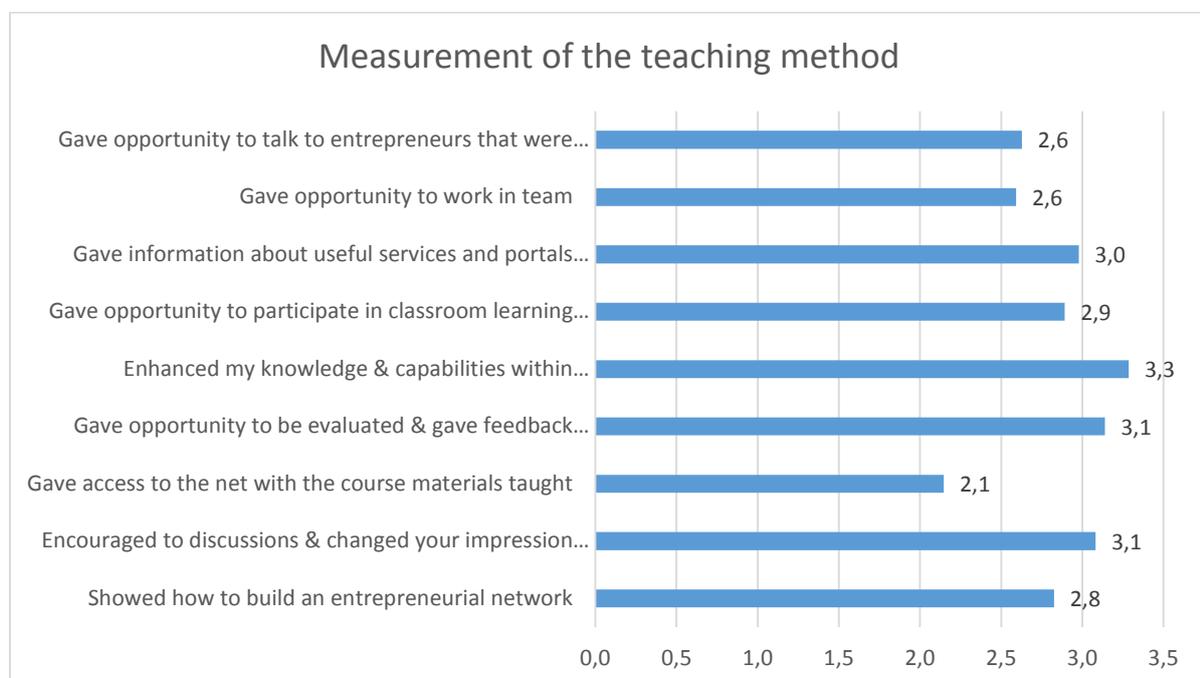


Figure 29 Teaching Method Measurement

In the last part of our survey questionnaire, we asked respondents for further comments and suggestions. Some of them which we think that relates to this particular area are given below.

One of the respondents gave feedback that Skape is of great help for future entrepreneurs who would like to establish a business on their own but does not have idea on how to do it. One of the participant commented that:

*“Skape er en fantastisk tilbud for de som vil etablere seg og har ingen peiling hvordan”
(Skape is a perfect offer for those who want to establish a business but don't have a good understanding of it)*

While the possibility to get an access to reviewed content on the internet had the lowest score. The respondents wished that educational approach should be more digitalized - that is an access to electronical summary of the material taught and more knowledge about how to promote oneself through social media. Among those feedbacks were:

«Trekk inn mulighetene som ligger i digitalisering og automatisering av vanlige prosesser/oppgaver i en bedrift».

(Use the possibilities that lie in digitalization and automatization of simple processes in a company)

“Gi gode oppsummeringer etter kursene. Gjerne elektronisk. På denne måten blir kunnskapene for den enkelte bevart”

(Give comprehensive summary when the course is over. Better in a electronic format. By doing this we can take care of the perceived knowledge)

4.2.4 Descriptive Analysis of Role of Teacher

Further, we measure the creativeness and innovativeness of Skapes' educators. This was done by asking the respondents on how they evaluate the teaching quality of the teachers using a 5-point Likert scale ranging from 1=very bad to 5=very good. As can be seen in figure 30, *professionalism and inspiring teaching method* got the highest score of 4. While lowest score is 3.4 which was *innovative and creative form of learning*.

Scale Measurement Role of Teachers

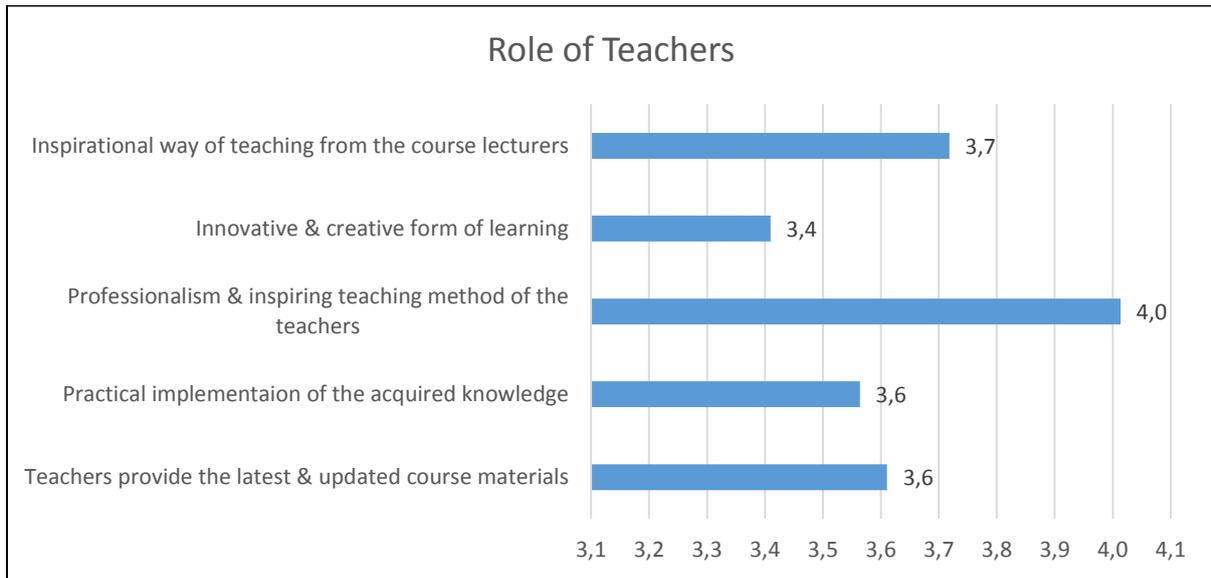


Figure 30 Role of Teachers

On the comment and suggestion part of our survey questionnaires, many respondents emphasize that there is space for improvement. For example, in terms of *practical implementation of the acquired knowledge*, mostly of the participants need more focus on economics (e.g., financing, managerial, etc.) and practical skills. As such, they claimed that so much part of the courses were dedicated to teach students how to create new ideas and visions without giving practical advice on how to do business in reality and what kind of challenges one should be prepared for. Thus, some participants wished they could learn more about sole proprietorship (Enkeltpersonforetak, “EPF”) from Skape. Many come up with the idea to create a special course where students were given knowledge on taxes, MVA and so on. Written below are some necessary feedbacks:

“Ha kurs over flere ganger på enkelte tema etter introduksjonskurs på to-tre timer. Spesielt innen praktiske ting som har med lover og økonomi å gjøre”

(Have courses several times on individual topics after introductory course for two to three hours. More specifically on practical things like laws and finance)

“Det introduksjonskurset må ha mer om «EPF», eller ha et eget kurs om EPF. Alt det innebærer, hvordan skrive selvangivelse, lovverk, hvis du ønsker å selge produkter hva må man gjøre/forholde seg til. Det var derfor jeg tok kurset, men fikk ikke svar på dette i det hele tatt.”

(Introduction course should discuss more about sole proprietorship or provide course which is focusing just on sole proprietorship. Topics in the courses should include tax returns, laws, and marketing. That’s why I attended the course, but didn’t get answer with this at all)

«Vedrørende Etablererkurs skulle ønsket mere informasjon om EPF. Fokuset lå kun AS hviket ikke var relevant for meg»

(With regard to business start-up course, wished to have some more information about sole proprietorship. The course mainly focus on corporate firm of which is not relevant for my case)

“Selg sitt product bedre. Være initiative rik og motiverende. Mer aktiv overfor sine kunder. Tenk som grundere, ikke som «offentlig ansatte»”

(Sell your product better. Take some initiative and make some motivations. Be active towards your customers. Think like an entrepreneur, and not like a “public employee”)

4.6 Effects of TM and RT on EI, ESE and Risk

In this section we will test direct relationships between TM and RT on EI, ESE, and risk. We start first by presenting the correlation table and proceed further with linear regression analyses to test *H2a – H4b*.

4.6.1 Descriptive statistic and correlations among the analysis variables

Table 10 Descriptive statistic and correlations among the analysis variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
1 Gender	1,5	0,5	1									
2 Age	4,9	1,1	0,59	1								
3 Educational level	2,8	1,1	0,211**	0,14	1							
Benefits from												
4 NAV	1,6	0,5	0,232**	0,071	0,29	1						
Prior Ent.												
5 Exposure	1,3	0,5	0,041	0,134*	0,08	-0,002	1					
6 TM	2,7	0,9	-0,074	-0,72	-0,003	-0,14	0,004	1				
7 RT	3,69	0,8	0,047	0,105	-0,007	0,027	0,067	0,612**	1			
8 EI	3,6	0,9	0,158*	-0,046	0,079	-0,025	0,042	0,497**	0,545**	1		
9 ESE	2,8	0,9	0,016	-0,091	-0,024	0,009	0,004	0,732**	0,604**	0,675**	1	
10 Risk	3,4	1,1	0,091	0,043	0,034	0,13	-0,041	0,528**	0,550**	0,556**	0,654**	1

** . Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed), n=111

From the correlation table we can observe that gender is significantly correlated with EI. We have looked a bit deeper in what way those variables are related. In figure 31, we can see that that mostly males (except those who have master's degree) have higher EI and are more interested in starting a business than their female counterparts. Our findings is consistent with the previous researches of (Arenius & Minniti, 2005; Mazzarol et al., 1999; Phan et al., 2002). However, it can also be seen that women who are having master's degree are more likely to engage in entrepreneurial activity than men, thus gender and education should be considered together.

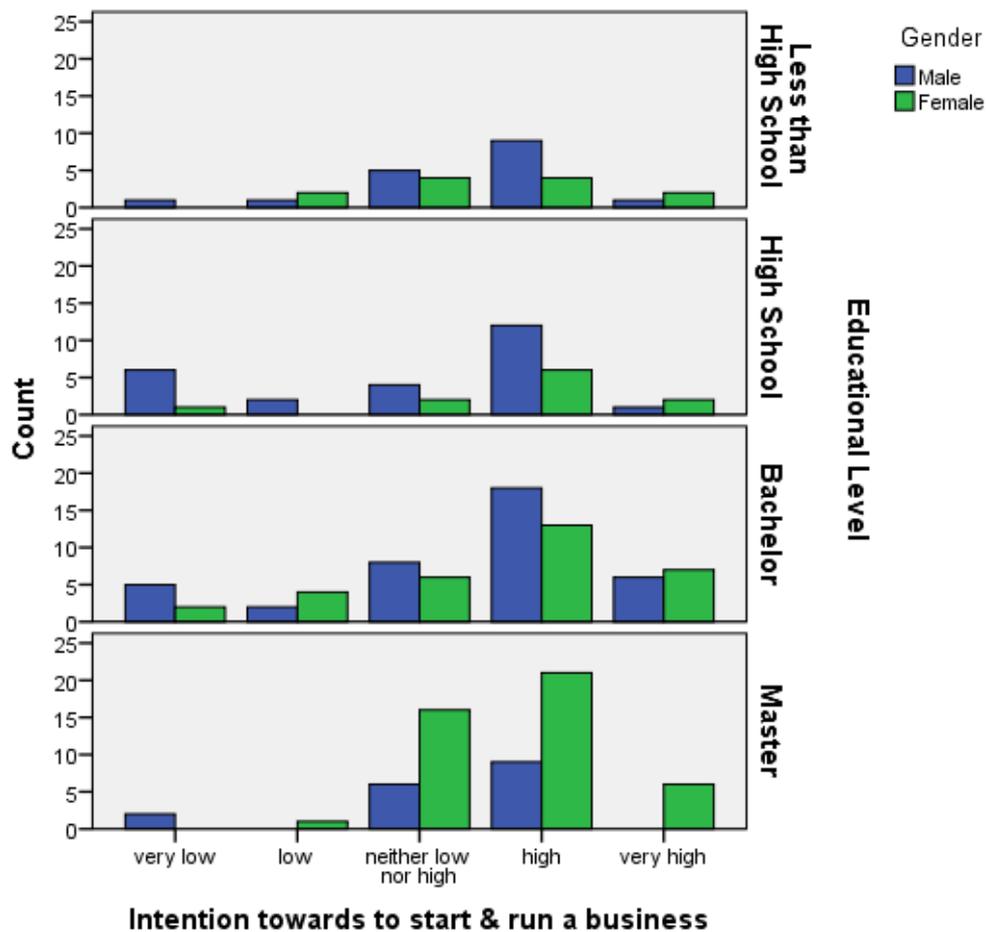


Figure 31 Entrepreneurial Intentions in terms of education and gender

4.6.2 Linear Regression Analysis

To test hypotheses *H2a*, *H2b*, *H3a*, *H3b*, *H4a*, and *H4b*, we ran a Linear Regression Analysis. Since correlation tables showed that only gender has significant relationship to EI, we used only gender as control variable in this regression. In table 11, we present the results from three different regressions – **model 1** is where RM and TM are regressed on EI, **model 2** where RM and TM are regressed on ESE, and finally, in **model 3** RM and TM are regressed on Risk perceptions. These regressions are presented in following equations:

$$EI_i = a_0 + \beta_1 \text{Gender} + \beta_2 \text{RT} + \beta_3 \text{TM} + \varepsilon_i \quad (1)$$

$$ESE_i = a_0 + \beta_1 \text{Gender} + \beta_2 \text{RT} + \beta_3 \text{TM} + \varepsilon_i \quad (2)$$

$$\text{Risk}_i = a_0 + \beta_1 \text{Gender} + \beta_2 \text{RT} + \beta_3 \text{TM} + \varepsilon_i \quad (3)$$

Table 11 RT, TM and gender regressed on EI, ESE, and risk

	Model 1 Regressed on EI	Tolerance values for model 1	Model 2 Regressed on ESE	Tolerance values for model 2	Model 3 Regressed on R	Tolerance values for model 3
Gender	0,009	,972	-,063	,966	,032	,971
RT	0,409***	,648	,284***	,647	,371***	,640
TM	0,280**	,655	,569***	,654	,314**	,650
R ²	0,378		0,593		0,376	
Adj. R ²	0,363		0,582		0,361	
F	25,306***		51,980***		24,704***	
Δ R ²	0,378		0,593		0,376	
Δ F	25,306***		51,980***		24,704***	

*p < 0.05; **p < 0.01; ***p < 0.001 (n = 129).

In model 1 a total of 36% of the variance is explained by the set of variables. Role of teachers is significantly associated with EI ($\beta=0.41$, $p < 0.001$) of the variance in EI, while teaching method is also significantly associated with EI but a bit lower level ($\beta=0.28$, $p < 0.01$). This result supports our first two hypotheses *H2a* and *H2b* about positive effect of RT and TM on entrepreneurial intentions.

In model 2 total of 58% of the variance is explained by the set of variables. Here, Role of teachers is significantly associated with EI ($\beta=0.28$, $p < 0.001$) of the variance in EI. Likewise teaching method is also significantly associated with EI ($\beta=0.57$, $p < 0.001$). Thus, *H3a* and *H3b* are supported.

In model 3 total of 38% of the variance is explained by the set of variables. Here, Role of teachers is significantly associated with EI ($\beta=0.37$, $p < 0.001$) of the variance in EI. At the

same time, teaching method is also significantly associated with EI ($\beta=0.31$, $p<0.01$). Thus, *H4a* and *H4b* are supported.

In model 2 a total of 57% of the variance is explained by Teaching method ($\beta_{TM}=0.57$, $p < 0.001$; $\beta_{RT}=0.28$, $p < 0.001$).By comparing the result of RT and TM in two models, the β -value of TM in model 2 is bigger (57%) compared to 28% in model 1. While in model 2, RT plays more less role in explanation of variance by giving the value of 28% compared to 41% in model 1. The β estimator of RT and TM are almost equal in their explanation of variance giving 37% and 31% respectively.

Summary

Table 12 Summary of results for H 2a-H4b

<i>Hypothesis 2a:</i>	<i>Role of teachers positively impact EI</i>	Supported
<i>Hypothesis 2b:</i>	<i>Teaching Methods' positively impact EI</i>	Supported
<i>Hypothesis 3a</i>	<i>Role of Teachers positively influence ESE.</i>	Supported
<i>Hypothesis 3b:</i>	<i>Teaching Methods' positively impact ESE</i>	Supported
<i>Hypothesis 4a:</i>	<i>Role of teachers positively influence risk</i>	Supported
<i>Hypothesis 4b:</i>	<i>Teaching Methods' positively influence risk.</i>	Supported

4.7 Test of mediating effect

To test *H5a*, *H5b*, *H6a* and *H6b* about the mediating role of ESE and mediating role of risk, we applied PROCESS macro (model 74).

MacKinnon and co-scholars (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002; MacKinnon, Lockwood, & Williams, 2004) reviewed variety of methods in measuring statistical inference of indirect effects. Among the most common strategy is the resampling or bootstrapping approach. This method is preferred on our study because it does not require the assumption of normality of the sampling distribution in conducting inferential test and it functions well on several simulation studies (Hayes & Scharkow, 2013; MacKinnon et al., 2004; Williams & MacKinnon, 2008). It is also easy to apply in existing software like SPSS (Hayes & Preacher, 2014).

The bootstrapping method was applied in testing the hypotheses mentioned above. We exclude the control variables, since they were not significant in regression analysis. The Bootstrapping method does not require assumptions of the normal theory approaches (Sobel, 1982), and thus we can get more accurate indirect effects (Hayes, 2013). The Process Macros (extension of SPSS) was used for this analyses (see figure 32, 33, 34, & 35).

4.4.1 The Mediating Effect of ESE in Relationship between RT → EI

As can be seen from the result in figure 32, there is a strong direct effect between RT on EI which represents 0.74***, while the indirect effect is 0.43***. In this method, a significant indirect effect is determined when the bootstrap confidence interval excludes zero. The results confirmed the mediating role of ESE in the relationship between RT and EI ($B = 0.3080$, 95% CI [0.1480, 0.5120]). Since the bootstrap confidence interval excluded zero, the indirect effect was significant. According to Preacher and Kelly (2011), results which has the value of greater than 0.25 implies a large effect. If the effect size has the value of greater than 0.01 but less than 0.09, it can be considered as relatively small effect. The effect size $B = 0.3080$ indicates that this is a large effect in this classification. The Sobel test showed $P=0.0001$, which demonstrate a strong significant effect.

Thus, we can conclude that *hypothesis 5a* is not mediated.

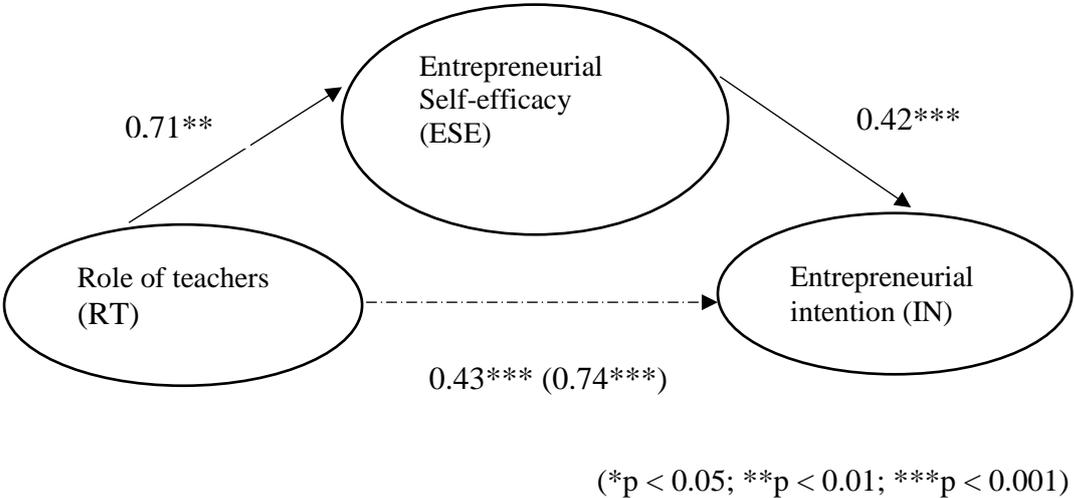


Figure 32 The Mediating Role of ESE in Relationship between RT → EI

4.4.2 The Mediating Effect of ESE in Relationship between TM → EI

In figure 33, our findings indicate that the direct effect of TM on EI is 0.54***, while the indirect effect is 0.17. In this method, a significant indirect effect is determined when the bootstrap confidence interval excludes zero. The results confirmed the mediating role of ESE in relationship between TM and EI ($B = 0.3621$, 95% CI [0.1851, 0.5687]). The indirect effect was significant as the bootstrap confidence interval excluded zero. Our effect size is 0.362 ($B = 0.3621$), indicating that this is a large effect in this classification. Also our Sobel test showed $P=0.0001$, which indicates a highly significant effect.

Thus, we can conclude that *hypothesis 5b* is fully mediated.

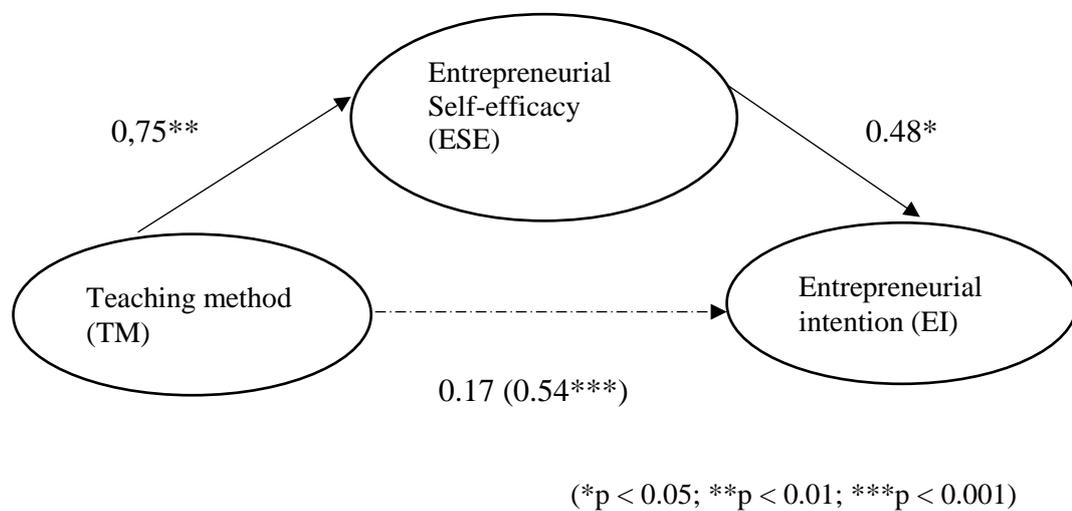
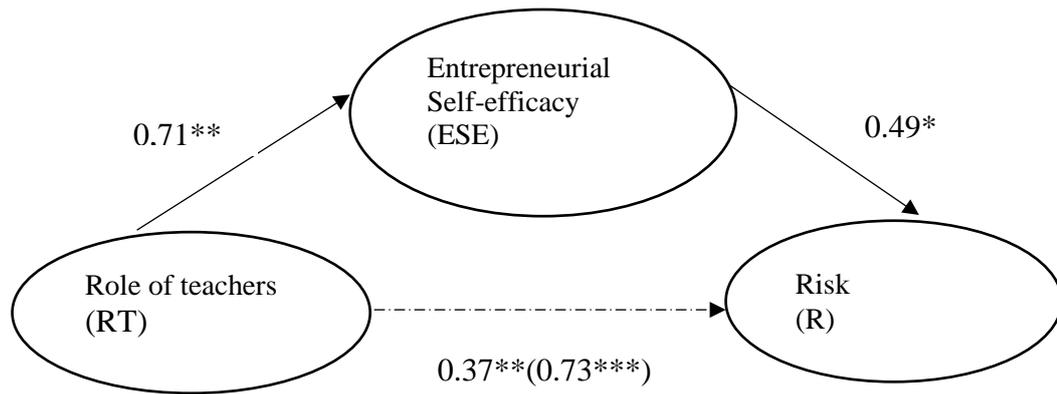


Figure 33 The Mediating Role of ESE in Relationship between TM → EI

4.4.3 The Mediating Effect of ESE in Relationship between RT → Risk

In figure 34, our results indicate that the direct effect of RT on Risk is 0.73***, while the indirect effect is 0.37**. Again in this method, a significant indirect effect is determined when the bootstrap confidence interval excludes zero. Size of mediation effect of ESE is large and significant, which is confirmed by beta coefficient and 95% Bootstrap CI ($B = 0.35$, 95% CI [0.2094, 0.5535]).

Thus, we can conclude that *hypothesis 6a* is partially mediated.



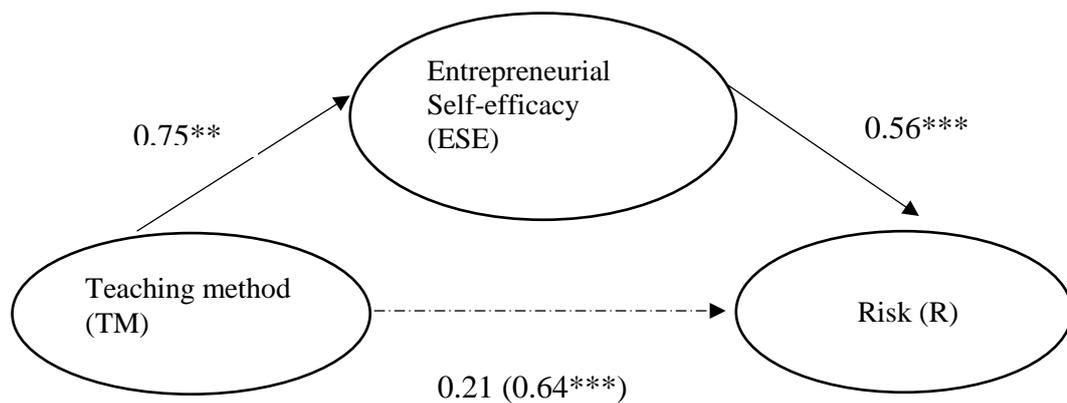
(*p < 0.05; **p < 0.01; ***p < 0.001)

Figure 34 The Mediating Role of ESE in Relationship between RT → R

4.4.4 The Mediating Effect of ESE in Relationship between TM → Risk

The same procedure was applied for the direct and indirect effect of TM on Risk. In figure 35 the relationship between TM and R gives a direct effect of 0.64***, while the indirect is 0.21. The Bootstrap interval ($B = 0.42$, 95% CI [0.250, 0.6338]) confirmed that indirect effect was significant.

Thus, we can conclude that *hypothesis 6b* is fully mediated.



(*p < 0.05; **p < 0.01; ***p < 0.001)

Figure 35 The Mediating Role of ESE in Relationship between TM → R

4.4.5 Summary

Table 13 Summary of results for H5a-H6b

<i>Hypothesis 5a</i>	Role of teachers' effect on EI is mediated by ESE	Not supported
<i>Hypothesis 5b:</i>	Teaching Methods' effect on EI is mediated by ESE	Supported
<i>Hypothesis 6a</i>	Role of teachers' effect on Risk is mediated by ESE	Partially supported
<i>Hypothesis 6b:</i>	Teaching Methods' effect on Risk is mediated by ESE.	Supported

5 CONCLUSION

The purpose of our study was to answer the following three research questions:

How participation in entrepreneurship training influence EI, ESE and risk perceptions of students?

How role of teachers and teaching methods influence EI, ESE and risk perceptions of students?

Does entrepreneurial self-efficacy played a mediating role on the relationship between dependent (e.g., RT & TM) and independent variable (e.g., EI and risk)?

In order to investigate our first research question, we tested three hypotheses with the following results:

Table 14 Summary of results for H1a - H1c

<i>Hypothesis 1a:</i>	Participation in entrepreneurship course will positively affect EI	Partly supported (positive but not significant)
<i>Hypothesis 1b:</i>	Participation in entrepreneurship course will positively affect ESE	Supported
<i>Hypothesis 1c:</i>	Participation in entrepreneurship course will reduce perception of risk.	Partly supported (positive but not significant)

Our results showed that after the course completion, an increase in ESE and EI was observed while risk perception decreased. These findings were consistent with previous researches of Noel (2011) and Souitaris et al. (2007). Although Hypotheses 1a and 1c were only partly supported, since we saw positive changes but they were not significant, this might be due to limitation of our study and very small number of respondents in the short survey. At the same time, our study find support for Hypothesis 1b, indicating significant increase in entrepreneurial self-efficacy. Based from this, we can conclude that courses provided by Skape contribute to enhance the level of entrepreneurial competencies of participants.

In order to test our second research question, we work through a number of pedagogical techniques, professional traits of teachers and elements of different kind of self-efficacy (Chen et al., 1998; DeNoble, Jung, & Ehrlich, 1999; Kolvereid & Isaksen, 2006). As a result of factor analysis, we got 3 factors which we called entrepreneurial self-efficacy, teaching method and role of teachers. Results of regression analysis confirmed that those two last factors (e.g., TM and RT) were significantly related to ESE, EI and Risk and have a positive effect. Summarized on the table below are the hypotheses and findings found.

Table 15 Summary of results for H2a - H4b

<i>Hypothesis 2a:</i>	<i>Role of teachers positively impact EI</i>	Supported
<i>Hypothesis 2b:</i>	<i>Teaching Methods' positively impact EI</i>	Supported
<i>Hypothesis 3a</i>	<i>Role of Teachers positively influence ESE.</i>	Supported
<i>Hypothesis 3b:</i>	<i>Teaching Methods' positively impact ESE</i>	Supported
<i>Hypothesis 4a:</i>	<i>Role of teachers positively influence risk</i>	Supported
<i>Hypothesis 4b:</i>	<i>Teaching Methods' positively influence risk.</i>	Supported

To examine our third research question, we tested four hypotheses about the mediating role of ESE on RT → EI relationship, TM → EI relationship, RT → R relationship and TM → R relationship. The following results were as follows:

Table 16 Summary of results for H5a - H6b

Hypothesis 5a	Role of teachers' effect on EI is mediated by ESE	Not supported
Hypothesis 5b:	Teaching Methods' effect on EI is mediated by ESE	Supported
Hypothesis 6a	Role of teachers' effect on Risk is mediated by ESE	Partially supported
Hypothesis 6b:	Teaching Methods' effect on Risk is mediated by ESE.	Supported

It turned out that entrepreneurial self-efficacy played a substantial role in our analyses and proved its significant influence when introduced in the relationship between teaching methods and entrepreneurial intention as well as teaching methods and risk. Based from the results, it can be clearly determined the importance of ESE in forming entrepreneurial intentions and understanding risk-perceptions associated with business start-ups. Thus, the need to emphasize it on entrepreneurial courses is very important.

5.4 Theoretical implication

In the present research we aimed to extend the theories deriving the effects of entrepreneurial education of entrepreneurial competencies, intentions and risk-perceptions. While previous studies focused mainly on the effects of participation in the courses, in our study we researched deeper into the elements of teaching and course elements that provided major effects. Further, we investigated the importance of enhancing competencies operationalized through self-efficacy concept and their role in facilitating entrepreneurial intentions. Prior studies have provide mixed results in terms of outcomes for entrepreneurial intentions, and while our study clearly showed that education first of all enhance competencies. Through competencies, intentions to start-up and run own business can be formed, and realistic perceptions of risk associated to business start-up can be achieved.

5.5 Practical implication

As stated earlier, individual's belief on his/her capability of performing task related to entrepreneurship can be cultivated through four elements: enactive mastery, vicarious experience, verbal persuasion and physiological state (Bandura, 1982, 1992, 1997). Entrepreneurship education can cater these sources of ESE in many ways. For example, mastery experience can be strengthened through educational activities such as "***opportunity to participate in classroom learning activities and teamwork***". As we have seen in our analyses part, the mean scores for these two were 2.9 and 2.6 respectively which are quite low. Out of this, we can recommend that Skape should provide classroom learning activities that give picture about "real world" entrepreneurship. This can be done through role plays, solving case methods and simulated business situations (Samwel Mwasalwiba, 2010). Likewise, Skape should incorporate teamwork because literature supports that team-oriented method increases individual's level entrepreneurial competencies (Frank, Korunka, Lueger, & Mugler, 2005).

The statement about, "***opportunity to connect with entrepreneurs that were invited to lectures***" was related to vicarious experience. The mean score for this was 2.6 which was again very low. Hence it is hereby recommended that Skape should provide prestigious and successful entrepreneurs as guest speakers during lectures. An alternative option could be video profiles of successful entrepreneurs. Having opportunity to observe successful role models, helps vicarious learning to takes place (Zhao et al., 2005).

The statement "***opportunity to be evaluated and receive feedback from teachers***" belongs to social persuasion. The mean score for this was 3.1 which is just on average. It should be noted by Skape that teachers' positive feedback, encouraging comments and discussions can

increase participant's self-efficacy. Moreover, the role of teacher is essential in teaching entrepreneurial courses because students see them like a coach than being a traditional teacher. Looking back to the comment of one participant who said that "*teacher should act like an entrepreneur and not like a public employee*". Hence, feedback and supervision of teachers are crucial in enhancing student's competencies (Hytti & O'Gorman, 2004)

In addition, Skape should be aware that entrepreneurial education require some teaching strategies in addition to traditional pedagogy in order to enhance students' entrepreneurial intention. It is not only important to provide basic professional knowledge, but also knowledge which can contribute to boost self-awareness among the participants. Our best current recommendation for entrepreneurship courses is to incorporate both active and passive learnings elements (Kuratko, 2005; Samwel Mwasalwiba, 2010). Course contents are important and are useful to take into account the feedback from participants, who said that information should be more up-to-date and that the information should be revised. Formal learning should not be restricted to informational content of courses, but should include elements of experiential learning. Our further recommendations are addressed based on comments and suggestions of the participants. Many of them would like to have the opportunity to talk to entrepreneurs who were invited as guest lectures and at the same time, they would like to learned more on how to build entrepreneurial network.

5.6 Limitations

Our study suffered from some limitations. *First*, the number of respondents on our short survey were quite few which further leads to considerably limited generalization. *Second*, the number of non-responses on our long survey was very high which again leads to reduce generalization. Maybe a better and more creative survey method could increase the response rate for future research. *Third*, it was very limited time constraint in conducting our two set of surveys giving us not enough sample sizes especially on our short survey. *Fourth*, our long survey utilized cross-sectional approach in testing hypotheses. The use of longitudinal design could have given a more convincing results. *Fifth*, data gathered on this study are from respondents who participated in short-term entrepreneurial programs. Students who are enrolled in longer program of entrepreneurship might have different perceptions about new business creation, risk-perception and entrepreneurial learning. Thus, their entrepreneurial intentions, risk-perceptions and entrepreneurial learning could differ from our findings.

5.7 Future research

While our research extended the present literature of the entrepreneurial education and its effects on intentions, competencies and risk, it is still too early to conclude whether entrepreneurs are born or made. What we have learned from our study is that more active elements in learning are important, and that the same time, teaching method or contents of educational courses are not suited to everyone. We need more research into how different elements of entrepreneurial education can be best utilized for different respondent groups.

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7 APENDIX

Original survey questionnaires were given in Norwegian. The English version were the one used on our analyses.

SPØRRESKJEMA OM ENTREPRENØRSKAP (LILLE SURVEY T1)

Vennligst angi følgende informasjon:

1. Kjønn : Mann Kvinne
2. Alder: ____ år.
3. Opprinnelsesland: _____.
4. Utdanningsnivå: Master Bachelor Videregående Ungdomsskole
5. Får du ytelse fra NAV? Ja Nei

Hvis **Ja**, gå til spm 6, hvis **Nei**, gå til spm 7.

6. Hvor lenge har du hatt støtte fra NAV (antall år eller måneder)? ____ år / ____ måneder.
7. Får du dagpenger for etablering av egen virksomhet?

Utviklingsfase Oppstart fase Jeg får ikke slike dagpenger

8. Arbeider du på nåværende tidspunkt på heltid eller deltid (minst 20 timer per uke)

Ja Nei

9. Har du jobberfaring?

Nei Ja, 1-3år Ja, 3-5 år Ja, 5-10 år Ja, mer enn 10 år

10. Er din nåværende forretningside relatert til din jobberfaring?

Ja Nei

11. Har du noen gang vært involvert i oppstarts aktiviteter?

Ja Nei

12. Har noen i din familie/slekt noen gang vært selvstendig næringsdrivende?

Ja Nei

13. Gi uttrykk for i hvilken grad du er uenig/enig i følgende påstander:

	Helt uenig	Verken enig/uenig			Helt enig		
	1	2	3	4	5	6	7
Jeg er bestemt på å etablere en bedrift i fremtiden	<input type="checkbox"/>						

14. Hvis du kunne velge mellom å være selvstendig næringsdrivende eller å være ansatt hos noen, hva ville du ha valgt ?

1 2 3 4 5 6 7

Foretrekker å
være ansatt hos noen

Foretrekker å være
selvstendig næringsdrivende

15. Gi uttrykk for i hvilken grad du er uenig/enig i følgende påstander:

Jeg kan	Helt uenig						Helt enig
	1	2	3	4	5	6	7
1. Identifisere nye markedsmuligheter for produkter og tjenester	<input type="checkbox"/>						
2. Oppdage nye måter for å forbedre eksisterende produkter og tjenester	<input type="checkbox"/>						
3. Jeg har evner til å ta kontroll over forretnings kostnader	<input type="checkbox"/>						
4. Skape produkter som tilfredsstillende markedets udekkede behov	<input type="checkbox"/>						
5. Artikulere visjoner og verdier for organisasjon	<input type="checkbox"/>						
6. Inspirere andre til å utvikle visjon og verdier for bedriften	<input type="checkbox"/>						
7. Formulere aktiviteter for å benytte nye muligheter	<input type="checkbox"/>						
8. Planlegge nye forretningsmuligheter	<input type="checkbox"/>						
9. Skrive en formell forretningsplan	<input type="checkbox"/>						
10. Finne relevante partnere for min forretning	<input type="checkbox"/>						
11. Finne ressurser for min forretning	<input type="checkbox"/>						
12. Lede og administrere en liten forretning	<input type="checkbox"/>						
13. Utvikle en suksessrik forretning	<input type="checkbox"/>						

16. Gi uttrykk for i hvilken grad du er uenig/enig i følgende påstander:

	Helt uenig		Verken enig/uenig			Helt enig	
	1	2	3	4	5	6	7
1. Å starte en ny bedrift er veldig risikofylt	<input type="checkbox"/>						
2. Det er stor usikkerhet knyttet til å forutsi hvor bra en ny bedrift vil gjøre det	<input type="checkbox"/>						
3. Den totale risiko ved etablering av en ny bedrift er stor	<input type="checkbox"/>						

17. Hvilke kursinnhold er du mest interessert i å lære:

Kursinnhold	Mindre				Mest		
	1	2	3	4	5	6	7
1. Personlige egenskaper for å lykkes	<input type="checkbox"/>						
2. Generelt om firmatyper, juridisk og fordeler utfra forskjellige situasjoner	<input type="checkbox"/>						
3. Forretningsideen - mulighet og trusler	<input type="checkbox"/>						
4. Firmaetablering – jus	<input type="checkbox"/>						
5. Markedsføring	<input type="checkbox"/>						
6. Kreativitet	<input type="checkbox"/>						
7. Budsjettering	<input type="checkbox"/>						

8.Finansiering/Innovasjon Norge	<input type="checkbox"/>						
9.Besøk/Presentasjon fra grundere	<input type="checkbox"/>						
10.Fremføring/Presentasjonsteknik	<input type="checkbox"/>						

**SPØRRESKJEMA
OM ENTREPRENØRSKAP (LILLE SURVEY T2)**

Hensikten med denne undersøkelsen er å måle effekter av kurset på personlige holdninger og undervisningstilbudskvalitet. Noen spørsmålet kan gjenta seg fra forrige versjon.

1. Gi uttrykk for i hvilken grad du er uenig/enig i følgende påstander:

	Helt uenig				Helt enig		
	1	2	3	4	5	6	7
Jeg er bestemt på å etablere en bedrift i fremtiden	<input type="checkbox"/>						

2. Hvis du kunne velge mellom å være selvstendig næringsdrivende eller å være ansatt hos noen, hva ville du ha valgt?

	1	2	3	4	5	6	7
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
næringsdrivende	Foretrekker å være ansatt hos noen				Foretrekker å være selvstendig		

3. Gi uttrykk for i hvilken grad du er uenig/enig i følgende påstander:

	Helt uenig				Helt enig		
	1	2	3	4	5	6	7
Jeg kan							
1. Identifisere nye markedsmuligheter for produkter og tjenester	<input type="checkbox"/>						
2. Oppdage nye måter for å forbedre eksisterende produkter og tjenester	<input type="checkbox"/>						
3. Jeg har evner til å ta kontroll over forretnings kostnader	<input type="checkbox"/>						
4. Skape produkter som tilfredsstill markedets udekkede behov	<input type="checkbox"/>						
5. Artikulere visjoner og verdier for organisasjon	<input type="checkbox"/>						
6. Inspirere andre til å utvikle visjon og verdier for bedriften	<input type="checkbox"/>						
7. Formulere aktiviteter for å benytte nye muligheter	<input type="checkbox"/>						
8. Planlegge nye forretningsmuligheter	<input type="checkbox"/>						
9. Skrive en formell forretningsplan	<input type="checkbox"/>						
10. Finne relevante partnere for min forretning	<input type="checkbox"/>						
11. Finne ressurser for min forretning	<input type="checkbox"/>						
12. Lede og administrere en liten forretning	<input type="checkbox"/>						
13. Utvikle en suksessrik forretning	<input type="checkbox"/>						

4. Gi utrykk for i hvilken grad du er uenig/enig i følgende påstander:

	Helt uenig				Helt enig		
	1	2	3	4	5	6	7
1. Å starte en ny bedrift er veldig risikofyllt	<input type="checkbox"/>						
2. Det er stor usikkerhet knyttet til å forutsi hvor bra en ny bedrift vil gjøre det	<input type="checkbox"/>						
3. Den totale risiko ved etablering av en ny bedrift er stor	<input type="checkbox"/>						

5. I hvilken grad **DEKKET** kurset i følgende område:

	Minst						Mest
	1	2	3	4	5	6	7
Kursinnhold							
1. Personlige egenskaper for å lykkes	<input type="checkbox"/>						
2. Generelt om firmatyper, juridisk og fordeler utfra forskjellige situasjoner	<input type="checkbox"/>						
3. Forretningsideen - mulighet og trusler	<input type="checkbox"/>						
4. Firmaetablering – jus	<input type="checkbox"/>						
5. Markedsføring	<input type="checkbox"/>						
6. Kreativitet	<input type="checkbox"/>						
7. Budsjettering	<input type="checkbox"/>						
8. Finansiering/Innovasjon Norge	<input type="checkbox"/>						
9. Besøk/Presentasjon fra grundere	<input type="checkbox"/>						
10. Fremføring/Presentasjonsteknik	<input type="checkbox"/>						
11. Forretningsplan	<input type="checkbox"/>						

6. Hvor tilfreds er du på **KVALITETEN** av undervisningen i følgende område:

	Svært utilfreds						Svært tilfreds
	1	2	3	4	5	6	7
Kursinnhold							
1. Personlige egenskaper for å lykkes	<input type="checkbox"/>						
2. Generelt om firmatyper, juridisk og fordeler utfra forskjellige situasjoner	<input type="checkbox"/>						
3. Forretningsideen - mulighet og trusler	<input type="checkbox"/>						
4. Firmaetablering jus	<input type="checkbox"/>						
5. Markedsføring	<input type="checkbox"/>						
6. Kreativitet	<input type="checkbox"/>						
7. Budsjettering	<input type="checkbox"/>						
8. Finansiering/Innovasjon Norge	<input type="checkbox"/>						
9. Besøk/Presentasjon fra grundere	<input type="checkbox"/>						

10.Fremføring/Presentasjonsteknik
 11. Forretningsplan

<input type="checkbox"/>							
<input type="checkbox"/>							

6.Hva slags ulempene, etter din mening, kan identifiseres i kursinnholdet og i hvilken grad ?

Helt enig

Helt uenig

1.De fleste av kunnskapene er kjent for meg	<input type="checkbox"/>						
2.Mange teorier, og liten praksis	<input type="checkbox"/>						
3.Undervisning informasjon er ikke oppdatert og foreldet	<input type="checkbox"/>						
4.Forelesere har gått gjennom temaene altfor fort	<input type="checkbox"/>						
5.Varigheten av kurset var ikke passende	<input type="checkbox"/>						

7.Hva er beste formen for læring etter din mening:

Minst Lærerik

Mest Lærerik

Hva de dekket av Skape kurs?

	1	2	3	4	5	Ja 6	Nei 7
1. Entreprenørskapskurs, som gir mulighet til å bygge et entreprenør nettverk	<input type="checkbox"/>						
2. Kursholdere viser eksempler på spesifikke situasjoner, som man kan møte i fremtid	<input type="checkbox"/>						
3. Kurs som oppmuntrer til diskusjoner og kan endre synet på entreprenørskap	<input type="checkbox"/>						
4. Forelesning som også tilgjengelig på nett (videoptakk) i ettertid	<input type="checkbox"/>						
5. Kurs, som gir mulighet for å bli vurdert, slik at du kan forstå, hva du husker av kursinformasjon	<input type="checkbox"/>						
6. Kurs som bidro til min kompetanseopplæring i nye områder	<input type="checkbox"/>						
7. Kurs som gir mulighet for å delta i situasjonbasert læringsaktiviteter i klassen.	<input type="checkbox"/>						
8. Kurs, som gir kjenskap til kompetensebasert tjenester/portalen(i.e. regnskapsprogrammer,merkedsføringsverktøy, brønnøysund registrene	<input type="checkbox"/>						
9. Kurs, som gir mulighet for å jobbe i team	<input type="checkbox"/>						

Tusen takk for hjelpen!

Short Survey

Section 1: Demographic Variables

Demographic Variables	Coding
Gender	0 = Female; 1 = Male
Age	
Nationality	0 = Foreign; 1 = Norwegian
Educational Level	1 = Less than high school; 2 = High school; 3 = Bachelor; 4= Masters
Welfare Benefits from NAV	0 = No; 1 = Yes
Employment Status	0 = No; 1 = Yes
Previous Job Experience	0 = None; 1 = (1 - 3 yrs); 2 = (3 - 5 yrs); 3 = (5 - 10 yrs); 4 = (> 10 yrs)
Prior Entrepreneurial Exposure	0 = No; 1 = Yes

Prior Entrepreneurial Exposure:

Is your current business idea related to you job experience? (Yes/No)

Have you ever been started or involved in any start up activities? (Yes/No)

Has any of your family member(s)/relatives ever been an independent business owner? (Yes/No)

Section 2: Measuring Entrepreneurial Intention (EI)

To what extent do you disagree/agree with the following statements (1=totally disagree, 7=totally agree):

	Totally Disagree				Totally Agree		
	1	2	3	4	5	6	7
I am determined to create a firm in the future.	<input type="checkbox"/>						
If you could choose between being self-employed and being employed by someone, what would you prefer?	<input type="checkbox"/>						

Section 3: Measuring Entrepreneurial Self- Efficacy (ESE)

To what extent do you disagree/agree with the following statements: (1=totally disagree, 7=totally agree)

	Totally Disagree				Totally Agree		
	1	2	3	4	5	6	7
<u>OISE</u> (4 items)							
I can see new market opportunities for new products/services	<input type="checkbox"/>						
I can discover new ways to improve existing products/services	<input type="checkbox"/>						
I can create products that fulfill customers' unmet needs	<input type="checkbox"/>						
I can develop new business ideas	<input type="checkbox"/>						

MSE (4 items)

- I can control business cost
- I can write a formal business plan
- I can identify potential sources of funding for investments
- I can establish position in product markets

RSE (5 items)

- I can inspire others to believe on my vision & plans for new business
 - I can manage a small business
 - I can find and develop favorable relationships with key people
 - I can articulate visions and values in an organization
 - I can formulate activities to make use of new opportunities
-

Section 4: Measuring Risk

To what extent do you disagree/agree with the following statements: (1=totally disagree, 7=totally agree)

	Totally Disagree				Totally Agree		
	1	2	3	4	5	6	7
Starting a new business is very risky	<input type="checkbox"/>						
There is big uncertainty on how well the business will perform in the market	<input type="checkbox"/>						
Total calculated risk of establishing a business is big	<input type="checkbox"/>						

LONG SURVEY

Question 1

1. When were you in contact with Skape? (Når var du i kontakt med Skape?)

- 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016
 2017

Question 2

2. How useful were Skape's offers that you used? (Hvor stor nytteverdi hadde du av tilbudene du benyttet fra Skape?)

- Introduction course for founders (Introduksjonskurs for etablerere (3 timer))
 Online introduction course (Nettbasert introduksjonskurs)
 Founder course (day/evening course) (Etablererkurs (dag-/kveldskurs))
 Theme course (Temakurs)
 Individual guidance and counseling (Individuell veiledning/rådgivning)
 Skape Forum
 Webpage (Nettsiden www.skape.no)
 Newsletter from Skape (Nyhetsbrev fra Skape)
 Professional industrial assessment (Næringsfaglig vurdering)

Question 3.

Measures of entrepreneurial self-efficacy

Measures of:	In a scale of (1-7) where 1 is lowest and 7 is highest. Into which degree has the support from Skape helped you to:
MSE	to get financing (å skaffe finansiering) to make formal business plan (å skrive en formell forretningsplan) to lead and administrate a small business (å lede og administrere en liten forretning)
OISE	to identify new market opportunities for products and services (å identifisere nye markedsmuligheter for produkter og tjenester) to get useful knowledge (å få nyttig kunnskap)

RSE	to find resources for business (å finne resurser for din forretning) to build network (å bygge nettverk)
EI	to increase intentions to start up business (å øke intensjoner for å starte en bedrift)
Risk	to understand risk associated to business start-up (å forstå risiko i forbindelse med bedriftsetablering)

Question 4

Measures motivations and intentions

Hvorfor benyttet du kursene som Skape tilbyr? (sett gjerne flere kryss)

- to start up your own business (For å etablere egen bedrift)
- to extend the knowledge in a particular business area (For å utvide kompetanse i et bestemt fagområde)
- because they were recommended by NAV (Fordi NAV anbefalte kursene)

Question 5

Measures of Entrepreneurial behaviour

5. Have you started your own business after you have taken Skape's courses?

Har du etablert egen bedrift etter du har fullført Skape sine kurser?

- I had business from before (Jeg har bedrift fra før av)
- I am planning (Under planlegging)
- Yes (Ja)
- No (Nei)

Question 6

Why have you not started your own business? (Hvorfor etablerte du ikke egen bedrift?)

- Market situation were not good for my business idea (Markedsutsiktene var ikke gode nok for min forretningsidé)

- Did not get enough start capital (Jeg klarte ikke å reise nok startkapital)
- I did not get enough guidance in a start phase (Jeg fikk ikke nok veiledning og/eller annen hjelp i startfasen)
- I got a job offer that suited me better (Jeg fikk tilbud om jobb som passet meg bedre)
- I chose to continue education (Jeg valgte å ta videreutdanning)
- To start my own business was not the right thing for me (Å drive egen bedrift ikke var det rette for meg)
- Other (Annet)

Question 7

Have you participated in the following courses: introductory/grounder/theme course?

Deltok du i en av følgende kurs: Introduksjons/Etablerer/Temakurs?

- Yes (Ja)
- No (Nei)

Questions 8 and 9

Measuring components of education, proposed by (Mueller, 2011)

Measures of:	In a scale of (1-7) where 1 is lowest and 7 is highest. Into which degree courses that you took part in:
	I hvilken grad kurs som du deltok i:
	Gave information about useful services and portals (accounting programs, marketing tools)
	Ga kjennskap til kompetansebaserte tjenester/portal (i.e. regnskapsprogrammer, markedsføringsverktøy, Brønnøysund registrere)
Practical knowledge	Gave more knowledge about entrepreneurship
	Bidrett til min kompetanseoppbygning innenfor entreprenørskap
	Gave opportunity to learn from in-class activities
	Ga mulighet for å delta i situasjonsbasert læringsaktiviteter i klassen.
Entrepreneurial network	Showed how it is possible to build entrepreneur network
	Viste hvordan man kan bygge et entreprenør nettverk

Role models	Gave opportunity to get in touch with entrepreneurs that were invited to lectures Ga mulighet til å komme i kontakt med entreprenører som hadde blitt invitert som gjesteforelesere
Student orientation	Encouraged to discussions and changed your impression on entrepreneurship Oppmuntret til diskusjoner og har endret synet på entreprenørskap Gave access to the net Ga tilgang på nett (lyd/videopptak) i ettertid Gave opportunity to work in team Ga mulighet for å jobbe i team
Feedback	Gave the opportunity to be evaluated and gave feedback from teacher and other participants Ga mulighet for å bli vurdert, og å få tilbakemelding fra lærer eller andre deltakere

Question 9 and 18

Measures of Entrepreneurial Intentions

Measures of:	In a scale of (1-7) where 1 is lowest and 7 is highest. Into which degree courses that you took part in:	In a scale of (1-7) where 1 is lowest and 7 is highest. If you had a choice between being a businessman or an employee, what would you choose?
EI	I hvilken grad kurs som du deltok i: Increased my intentions to start my own business Økte mine intensjoner for å etablere bedrift.	Hvis du kunne velge mellom å være selvstendig næringsdrivende eller å være ansatt , hva ville du foretrekke? Would prefer to be employed by someone Vil foretrekke være ansatt av noen Would prefer to be self-employed Vil foretrekke å være selvstendig næringsdrivende

Question 9

Measures of teaching methods and role of teachers

Measures of:	In a scale of (1-7) where 1 is lowest and 7 is highest. Into which degree how would you assess the quality of the courses?: Hvordan evaluerer du kurskvalitet?
Teaching Methods	Gave the latest Information Formidling av nyeste og mest oppdaterte informasjon Practical implementation of the acquired knowledge Praktisk anvendelse av de mottatte kunnskaper
Role of teachers	Professionalism of the teachers Faglig dyktighet og god formidlingsevne hos kursholdere Innovative and creative learning form Innovativ og kreativ læringsform Inspiring teaching method of the course-givers Inspirerende læringsmåte hos kursholdere
Price	Affordable price Kursprisen var passende
Others	Was exciting to take part in courses Å ha det hyggelig på kurs

Long Survey

Measuring Entrepreneurial Self-Efficacy (ESE)

In a scale of (1-5) where 1 is very low and 5 is very high. Into which degree has the support from Skape have helped you to:

	Very Low		Very High		
	1	2	3	4	5
OISE (2 items)					
To identify new market opportunities for products/services	<input type="checkbox"/>				
To obtain useful knowledge	<input type="checkbox"/>				
MSE (3 items)					
To get financing	<input type="checkbox"/>				
To make formal business plan	<input type="checkbox"/>				
To lead & administrate a small business	<input type="checkbox"/>				
RSE (2 items)					
To find resources for business	<input type="checkbox"/>				
To create network	<input type="checkbox"/>				

Teaching Methods (TM)

In order to assess the TM provided by Skape, we asked the respondents to rate the quality of TM using a five-point Likert scale (1 = very low & 5 = very high).

(Note! Only the first five variables were used in factor analysis.)

	Very Low		Very High		
	1	2	3	4	5
1. Gave access to the net with the course materials taught	<input type="checkbox"/>				
2. Gave opportunity to participate in classroom learning activities	<input type="checkbox"/>				
3. Gave information about useful services and portals (e.g. accounting programs, marketing tools).	<input type="checkbox"/>				
4. Gave opportunity to work in team	<input type="checkbox"/>				
5. Gave opportunity to talk to entrepreneurs that were invited to lectures	<input type="checkbox"/>				
6. Showed how to build an entrepreneurial network	<input type="checkbox"/>				
7. Encouraged to discussions and changed your impression towards entrepreneurship	<input type="checkbox"/>				
8. Gave the opportunity to be evaluated and gave feedback from teacher & other participants	<input type="checkbox"/>				
9. Enhanced my knowledge & capabilities within entrepreneurship area	<input type="checkbox"/>				

Role of Teachers (RT)

RT were measured by asking the respondents to rate the creativeness and innovativeness of teachers on a 5-point Likert scale (1 = very bad, 5 = very good).

	Very Low			Very High	
	1	2	3	4	5
Teachers provide the latest & updated course materials	<input type="checkbox"/>				
Practical implementation of the acquired knowledge	<input type="checkbox"/>				
Professionalism & inspiring teaching method of the teachers	<input type="checkbox"/>				
Innovative & creative form of learning	<input type="checkbox"/>				
Inspirational way of teaching from the course lecturers	<input type="checkbox"/>				

Measuring Entrepreneurial Intention (EI)

Respondents were asked on a 5-point Likert scale (1 = very low, 5 = very high), in terms of their intention to start and run a business.

	Very Low			Very High	
	1	2	3	4	5
To increase intentions to start and run a business	<input type="checkbox"/>				

Measuring Risk

Respondents were asked to indicate their degree of understanding on risk-taking propensity using a 5-point Likert scale from 1 = very low to 5= very high.

	Very Low			Very High	
	1	2	3	4	5
To understand risk associated with business start-up	<input type="checkbox"/>				

