

Entrepreneurial Competences and Entrepreneurial Intentions of Students in Primary Education

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Abstract: *The purpose of the present study is to measure the entrepreneurial competences of primary school students in Greece and to examine their potential in becoming entrepreneurs in the future. The study used official data from 358 students of Primary Schools in the prefecture of Western Macedonia in Greece. The analysis was focused on the measurement of student's entrepreneurial competences by measuring their cognitive entrepreneurial skills (Knowledge) and their non cognitive entrepreneurial skills (attitudes and skills) and also their willingness to become entrepreneurs. Results show the 51.6% of the students are not negative for an entrepreneurial initiative in the future. Also, students have developed a good level of knowledge in the entrepreneurial field answering correctly more than half of the cognitive questions (54.75%). Concerning the non cognitive skills, the skills of Pro-activity, Persistence, Need for Achievement, Social Orientation, Motivating, Self Efficacy and Analyzing are the most developed skills in a level more than 60% while the skills of creativity (57.03%) and Risk Taking (16.93%) seem weaker.*

Keywords: *Entrepreneurial Competences, Entrepreneurship Education, Primary School, Entrepreneurial Intentions.*

1. INTRODUCTION

The last years there is a great emphasis on the field of entrepreneurship education in the educational systems of the most European countries (Vestergaard, Moberg and Jørgensen). National educational systems are facing new challenges as entrepreneurship education and, consequently, its effectiveness measurements are to be brought in. The European Union has stated entrepreneurship as one of the key competences for Europeans. To achieve these challenges EU has named entrepreneurial skills, encouraging entrepreneurship by fostering the right mindset and awareness of career opportunities as an entrepreneur, as goals and methods for European education system (European Commission). The aim of entrepreneurship education is to give students the attitudes, knowledge and skills to act in an entrepreneurial way. In the primary education, even if entrepreneurship is rarely included in the national curriculum of most of the European countries, there are efforts foreseeing the encouragement of light entrepreneurial skills which in the future can be considered as the base for the development of real entrepreneurial skills. The 'European frame' in 2006 defined eight basic competences which are considered as essentials for the personal completion and development of every European citizen, defining the 'Entrepreneurial initiative' as one of those (Eurydice network). The sense of initiative in entrepreneurship is referred as the ability to transform ideas in action including, creativity, innovation, risk taking and also the ability of planning in order the targets to be succeeded in an effective way. This study is trying to examine if and in which level a student in the last year of the primary education has developed the competence of taking entrepreneurial initiatives and how this is being succeeded. The purpose of this study is to examine if the primary education students have participated in entrepreneurship courses (Entrepreneurship education), the competences they have developed and their level and a variety of cognitive and non-cognitive Entrepreneurial skills (Entrepreneurial behavior) (Unger, Rauch and Frese). Also, it aims to increase awareness of entrepreneurship as a possible career opportunity in the future but also student's perceptions about it (Intentions-Aspirations-Ambitions for the future).

2. THEORETICAL BACKGROUND

As globalization and structural changes in the economy continue to confront the European Union with new challenges, there is a shift on Europe's comparative advantage towards knowledge-based activities. Each citizen, in order to be able to adapt flexibly to this rapidly changing and highly interconnected world, will need a wide range of key competences. In this frame, the dual role of education, both social and economic, is recognized as a key role which ensures that Europe's citizens can be able to acquire these necessary key competences. At European level, eight key competences have been defined, which represent a combination of knowledge, skills and attitudes that are considered necessary for personal fulfilment and development. *Active citizenship; social inclusion; and employment, Communication in the mother tongue; Communication in foreign languages; Mathematical competence and basic competences in science and technology; Digital competence; Learning to learn; Social and civic competences; Sense of initiative and entrepreneurship; and Cultural awareness and expression* are all considered equally important, because each of them can contribute to a successful life in a knowledge society (2006/962/EC). Focusing more on the economic changes and the need for all citizens to be able to adapt in the global competitive market the *Sense of initiative and entrepreneurship* seems to have a more clear and important role. These economic changes have led to opportunities for new entrepreneurial initiative, making Europe's competitiveness, innovation and economic growth depend on being able to produce future leaders with the skills and attitudes to be entrepreneurial in their professional lives, whether by creating their own companies or innovating in larger organizations (Wilson). Trying to make a success of the Lisbon strategy for growth and employment, Europe needs to stimulate the entrepreneurial mindsets of young people, encourage innovative business start-ups, and foster a culture that is friendlier to entrepreneurship and to the growth of small and medium-sized businesses (Expert Group). More specifically, since the Lisbon Agenda of 2000, the Commission and Member States have sought to develop greater levels of entrepreneurial activity across Europe and, in turn, identified the primary role of entrepreneurship education in supporting such an outcome.

3. ENTREPRENEURSHIP EDUCATION

Entrepreneurship education introduces entrepreneurship as a career choice, it supports the entrepreneurial way of seeing and doing things and it characterizes a way of teaching and learning (Steyaert and Katz), (Berglund and Johansson). As entrepreneurship education is the first and arguably the most important step for embedding an innovative culture in Europe, in recent years, there has been an intensified focus in this area from most of the European countries (Vestergaard, Moberg and Jørgensen). In order to explain this increasing focus on entrepreneurship education Jack and Anderson distinguish three factors that increase the demand for this specific educational field: the first factor refers to the interest of the governments in the introduction of entrepreneurship education and the creation of new job opportunities that arise through entrepreneurship. The second factor is the interest of the students on receiving entrepreneurship education in all educational levels. This increase on the demand is explained by the fact that there is a higher potential of the students on creating their own entrepreneurial activities, encouraged by the fact that researches show that there is high and positive correlation between entrepreneurship education and entrepreneurial initiatives in general (Vasiliadis, Vitsilaki and Efthimiou). One step further, students consider this educational field of a great importance in order to be able to work as effective staff members of an enterprise, which makes this norm not to concern only potential entrepreneurs but also includes people that are willing to be future staff members on enterprises. The third factor is the sector that offers educational services trying to cover the above demand sources trying to supply more educational programs, differentiated both on level and subject. Nevertheless, there is a question that preoccupies the researchers. This question is if entrepreneurship can be taught, that is, if entrepreneurship can be an educational field in formal or non formal educational frame. Business educators and professionals have evolved beyond the myth that entrepreneurs are born, not made. Peter Drucker, recognized as one of the leading management thinkers of our time, has said, "The entrepreneurial mystique? It's not magic, it's not mysterious, and it has nothing to do with the genes. It's a discipline. And, like any discipline, it can be learned" (Drucker). Thus, the basic assumption where all the interest of entrepreneurship education relies on is that entrepreneurship by itself and also the entrepreneurial skills can be taught (Oodterbeek, Praag and Ijsselstein), (Petridou and Sarri). The researches seem to have two

approaches on how entrepreneurship can be taught. The first one refers to the possibility that entrepreneurship can be an educational subject and the second refers to the possibility that entrepreneurship education can undertake on the development of personal characteristics of a person and the improvement of the competences for developing new entrepreneurial initiatives. According to the second one, entrepreneurship education should support the students' to try more persistently to achieve their goals, to be creative, to discover existing opportunities and in general to cope with the complicated society. This education involves the development of attitudes, behaviors, skills and attributes applied individually and/or collectively to help individuals and organizations of all kinds to create, cope with and enjoy change and innovation (Gibb), (Frank). This approach is very close to the definition according to the recommendation of the European parliament and of the Council of Europe corresponding key competence is the following: 'Sense of initiative and entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports individuals, not only in their everyday lives at home and in society, but also in the workplace in being aware of the context of their work and being able to seize opportunities, and is a foundation for more specific skills and knowledge needed by those establishing or contributing to social or commercial activity. This should include awareness of ethical values and promote good governance.' Entrepreneurship education is currently being promoted in most European countries. Several different approaches have been adopted like specific strategies/action plans focused exclusively on the integration of entrepreneurship education, broader educational or economic strategies which incorporate objectives for entrepreneurship education and individual or multiple initiatives related to entrepreneurship education (Eurydice network). In Greece, entrepreneurship education is part of the strategy for the New School (2010), which follows the educational strategic objectives common to the EU, among which is improving innovation, creativity and entrepreneurial spirit. Concerning primary education, the important role of education in promoting more entrepreneurial attitudes and behaviors, starting even at primary school, is now widely recognized. Even if entrepreneurship is rarely included in the national curriculum of the European countries, there are important efforts that foresee the development of light competences that can be considered as a prerequisite for the development of entrepreneurial competences in the future (Expert Group). In primary education, about two thirds of countries (or regions within countries) explicitly recognize entrepreneurship education and, in these countries, the cross-curricular approach prevails. Under this approach, rather than being explicitly mentioned as part of a particular subject, entrepreneurship objectives are expressed as being transversal, horizontal or cross-curricular. They form part of the values and competences to be developed throughout all subjects and curriculum activities. The most European educational systems the last years have implemented entrepreneurship education in their national curriculums in primary education level. Even if entrepreneurship is not generally taught as a separate subject there is a strategy that focuses on the development of entrepreneurial spirit to the students for creating entrepreneurial competences. (Eurydice network). In recent years a number of evaluation studies have addressed whether entrepreneurship education is effective in reaching its stated goals (Huber, Sloof and Van Praag). Results show that efforts already being done in primary education in some countries (e.g. Greece) are not enough and more long-lasting plans coherent with the future goals of entrepreneurship education should be considered (Tsakiridou and Stergiou). Resuming, education can help the development of entrepreneurship (Mitra and Manimala). Promoting entrepreneurial skills and attitudes education in entrepreneurship provides benefits to society even beyond their application to new business ventures. In a broad sense, entrepreneurship should be considered as a general attitude that can be usefully applied in all working activities and in everyday life, such as creativity and innovation (Sarri, Bakouros and Petridou). Everyone may at some stage need to become an entrepreneur, or to display entrepreneurial behavior or to have the opportunity of creating his/her own business regardless of background or location (EU Commission).

4. ENTREPRENEURIAL COMPETENCES

As competence, in general, is considered one's ability to succeed a specific result, with the least effort and use of time. The competences are not innate in people, but are developed through education and practice. Concerning the Entrepreneurial competences many researchers have tried to clarify their definition. Hisrich and Peters consider an entrepreneurship competence as the

ability of someone to create something new, putting time and effort, while taking in consideration economic, psychological and social risk, but also receiving the benefits from the economic and the personal satisfaction and independence. Olagunju says that an entrepreneurial competence is one's ability to take advantage of an idea and to create an entrepreneurial initiative, not only for making personal profit but also social and development one. In this study, entrepreneurial competences are defined as a combination of knowledge, skills and attitudes appropriate to the context of entrepreneurship. As the overall goal of entrepreneurship education is to give students these attitudes, knowledge and skills to act in an entrepreneurial way many researchers are trying to estimate the possible effect that cognitive and non cognitive skills might have on entrepreneurship. Heinonen and Poikkijoki have created a model which categorizes the broad dimensions of entrepreneurship providing a framework for the wide range of specific learning outcomes adopted by European countries. In this model, both attitudes and skills belong to the non cognitive entrepreneurial skills whether knowledge to the cognitive skills.

4.1 Non Cognitive Entrepreneurial Skills

According to the recommendation of the European parliament and of the Council an entrepreneurial attitude is characterized by initiative, pro-activity, independence and innovation in personal and social life, as much as at work. It also includes motivation and determination to meet objectives, whether personal goals or aims held in common with others, including at work. As mentioned above, in the model of Heinonen and Poikkijoki in the category attitudes, self-awareness and self-confidence are the entrepreneurial attitudes which constitute the basis for all other aspects of entrepreneurship. They entail discovering and trusting in one's own abilities which then allow individuals to turn their creative ideas into action, something also spotted by Shane who notes that self-efficacy is important for becoming an entrepreneur because confidence in one's own ability increases the willingness to pursue entrepreneurial opportunities. Also in this category taking initiative and risk taking, critical thinking, creativity and problem solving are also fundamental, but they are also specific attributes of an 'enterprising self'. The taking risks attitude is inherent to entrepreneurship because in economic life, with millions of individual or collective factors influencing it daily, no one can predict with absolute certainty what will be the development of it will be. In most researches the need for success is one of the most frequent entrepreneurial characteristics (Gürol and Atsan) and the stronger predictor of entrepreneurship (Pilllis and Reardon). A common research from Caliendo, Fossen and Kritikos mentions that there are two attitudes that traditionally are associated with both entrepreneurial intentions and performance, are "need for success" and "low risk aversion". According to McClelland people that these two attitudes are more responsible, set high goals, take risks and threats into consideration and take feedback from their performance. In the next category, Skills relate to proactive project management (involving, for example the ability to plan, organise, manage, lead and delegate, analyse, communicate, de-brief, evaluate and record), effective representation and negotiation, and the ability to work both as an individual and collaboratively in teams. The ability to judge and identify one's strengths and weaknesses, and to assess and take risks as and when warranted, is essential. Communication, presentation and planning skills as well as team work are transversal skills essential to entrepreneurs. Furthermore, Davidsson and Honig have shown that social skills, i.e., the ability to benefit from social connections, are important for becoming an entrepreneur as well as for the success rate of making it through the start-up phase. Social skills are very important because they give people the ability to create social relationships towards the realization of one's ideas. Practical exploration of entrepreneurial opportunities includes the various stages of the business set up process, including designing and implementing a business plan. Also, energy, perseverance, creativity, hard work, leadership skills, ability to motivate are essential elements for an entrepreneur. The questionnaire of this study, based on Rosendahl Huber, Sloof, & Van Praag includes questions concerning nine non-cognitive skills that are all commonly associated with entrepreneurship. These non-cognitive skills are: *Self-efficacy*: means believing in your own ability, feeling self confident and in control of your own success. *Need for achievement*: is the desire to do well in order to attain an inner feeling of personal accomplishment. *Risk taking*: propensity reflects the predisposition towards risky alternatives, the willingness to risk a loss and to deal with uncertainty. *Social orientation*: is the ability to make useful connections in order to realize (new) ideas. *Persistence*: is the ability to continue despite setbacks or objections. *Motivating*: is about inspiring and stimulating others. *Analyzing*: is the

ability to assess different (complex) situations, to find solutions and to make correct, well-balanced choices. *Pro-activity*: is the willingness to take action and the ability to tackle problems and execute (new) ideas. *Creativity*: refers to the ability to generate many possible solutions to a particular problem and to turn them into new opportunities. These separate skills are not solely important for entrepreneurs, but are powerful predictors of social economic success in general (Heckman, Hsse and Rubinstein), (Gensowski, Heckman and Savelyev), (Borghans, Duckworth and Heckman). However, as described above, this combination of skills is known to be important for successful entrepreneurship. We measure these entrepreneurial skills using validated self-assessment tests.

4.2 Cognitive Entrepreneurial Skills

One of the desired results of the entrepreneurship education is the development of cognitive skills that are relevant for entrepreneurship, like knowledge about what an entrepreneur does and what it entails to run a business. As cognitive skills are considered the entrepreneurial skills that concern knowledge in the field of entrepreneurship. According to the recommendation of the European parliament and of the Council necessary knowledge includes the ability to identify available opportunities for personal, professional and/or business activities, including 'bigger picture' issues that provide the context in which people live and work, such as a broad understanding of the workings of the economy, and the opportunities and challenges facing an employer or organization. Individuals should also be aware of the ethical position of enterprises, and how they can be a force for good, for example through fair trade or through social enterprise. The cognitive skills are necessary for an entrepreneur, as they concern the knowledge for entrepreneurship, for enterprises and the entrepreneurial process in general (Hartog, Van Praag and Van Der Sluis), (Unger, Rauch and Frese). More specifically, this knowledge is connected to the functionality of the product, the satisfaction of the customers, the dynamics of the market, the marketing mix, the financial institutes cooperating with, the return of business operation and the legal system within they operate. Heinonen and Poikkijoki mention that the Knowledge of career opportunities and the world of work are learning outcomes that are not exclusively related to entrepreneurship, but usually form part of students' general preparation for their future career choices. However, a sound knowledge of the nature of work and different types of work involve an understanding of what it is to be an entrepreneur. This knowledge also allows students to define and prepare their place in the world of work with a well developed awareness of opportunities and constraints. Knowledge of business organization and processes is specific knowledge of the environment in which entrepreneurship is often applied. In this study, a set of ten specific multiple choice questions is used to measure the cognitive skills (knowledge) of students. Examples are: "If a company makes less revenue by selling products or services than it spends, it will... a) be registered at the stock market, b) make a profit, c) make a loss, d) have debts", and "To set the price of a product you have to take into account... a) how much it costs to make the product, b) how many products can be made in a certain amount of time, c) the price that competitors ask for their products, d) all of the above". The development of these cognitive entrepreneurial skills or knowledge was measured by the percentage of correct answers to these questions (Rosendahl Huber, Sloof and Van Praag).

5. ENTREPRENEURIAL INTENTIONS

In this study, there is also an effort to measure the intentions of the students to become an entrepreneur in their future life. Raising entrepreneurial intentions is one of the main goals of entrepreneurship education in general and it is frequently used as an outcome measure in other impact evaluation studies (Rosendahl Huber, Sloof and Van Praag). The measurement of entrepreneurial intentions of a 12 year old student is difficult and no precedents are available to indicate the validity or predictive power of any such measure. We used two different measures to estimate the intention to start a business in the future. First, children were asked to write down two jobs they might like for their future occupation. They were free to write any kind of job without having a list and then we measured the percentage of the students wrote 'entrepreneur' as a possible future job. The measure of entrepreneurial intentions is the answer to the question: 'Do you think that you would like to start your own company one day?'; The students had three possible answers (yes, no or maybe) and we measured the answers proving a positive entrepreneurial attitude comparing to the percentage of the ones that didn't.

6. AIM-METHOD

The purpose of the present study is to record primary education students' entrepreneurial intentions and how these intentions can influence students' entrepreneurial competence. For the purpose of the study a questionnaire was used to collect information from Primary Schools in the prefecture of Western Macedonia in Greece. The questionnaire contained questions in order to record primary education students' entrepreneurial intentions for the future, to examine if the students have participated in entrepreneurship courses in school (Entrepreneurship Education), the competences they have developed and in which level and a variety of cognitive and non-cognitive Entrepreneurial skills (Entrepreneurial behaviour) (Vestergaard, Moberg and Jørgensen). Also, it aims to increase awareness of entrepreneurship as a possible career opportunity in the future but also student's perceptions about it (Intentions-Aspirations-Ambitions for the future). Data derived from the questionnaires were analyzed by using descriptive statistical methods and the technique of One-way ANOVA in order to examine the possible differences between students' intention for the future and their cognitive and non-cognitive entrepreneurial skills.

7. SAMPLE

The sample has been chosen using stratified sampling method and consisted of 358 students (190 boys and 168 girls) of Primary Schools in the prefecture Western Macedonia in Greece.

8. RESULTS

Results show that only the 12.6% of the students responded that they are willing to become entrepreneurs in the future, while, the majority of the students are not negative for an entrepreneurial initiative in the future (49%). However, a significant percentage of the sample (38.4%) responded that they don't imagine themselves as entrepreneurs. Concerning the cognitive skills, even if students don't receive entrepreneurship courses they seem to have developed a good level of knowledge in the entrepreneurial field they were examined during the study. Students answered correctly more than half of the cognitive questions ($M = 54.75\%$ $SD = 1.16\%$). More specifically, the questions that were answered correctly by the vast majority of the students were those asking, 'Who is an entrepreneur' (89% correct responses), 'What he or she does' (81,1% correct responses), 'How do you call the money that you get when you work in a company' (85.3% correct responses), 'In which category does a company that produces posters belongs to' (79.7% correct responses) and 'What happens when you spend more than you earn' (69.4% correct responses). The questions that were a bit more economic oriented were the ones that seemed to be a bit confusing for the students. More specifically concerning the question 'How do you call the money that a company gets from selling its service or product' 48% of the students answered correctly (income) while the 46.7% understood it as 'profit'. For the responses concerning the 'renting and the salaries' that a company assumes, the 49% understood that they are expenses while the 40% perceived them as income. A big diffusion of responses appeared to the question 'Which is the arithmetic operation for making profit', 47.1% of the students responded correctly, while the 20.6%, the 22.1% and the 10.3% chose the other three choices that were wrong. Also in the question 'What is the aim of a company when it produces a product' 50% chose the correct answer which was 'combining the three other possible choices (making a product, fast, cheap and with a high quality). The remaining 50% was between the three other choices. Girls seem to have significantly higher entrepreneurial cognitive level than boys ($t = 3.476$, $df = 156$, $p < .005$) since they answer correctly the 60% of the questions on average ($SD = 13\%$) while the boys respond correctly the 51.4% of the cognitive questions on average ($SD = 16.2\%$), (Table 1).

Table 1. Means and Standard Deviations of the cognitive level according to students' gender

	Boys		Girls		Total	
	M	SD	M	SD	M	SD
Cognitive Skills	51,44%	16,20%	60,00%	13,04%	54,75%	15,59%

The cognitive skills factor is significantly affected by the entrepreneurial intention of the students ($F_{2,148} = 5,474$, $p < 0.01$) and more specifically, students who responded that they would like to become entrepreneurs in the future have a deeper level of knowledge on the entrepreneurial field

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($M = 59\%$, $SD = 12.39\%$) compared to the students answered that they probably will become entrepreneurs in the future ($M = 53.85\%$, $SD = 9.61\%$) and the ones who said that they are not interested in the entrepreneurial initiative in the future ($M = 51.03\%$, $SD = 16.83\%$) (Table 2).

Table 2. Means and Standard Deviations of the cognitive level according to students' entrepreneurial intention

Entrepreneurial intention	No		May be		Yes	
	M	SD	M	SD	M	SD
Cognitive skills	51.03%	16.83%	53.85%	9.61%	59.00%	12.39%

students responded to different groups of questions refer to the nine non cognitive entrepreneurial skills as shown in Table 3.

Table 3. Means and Standard Deviations of the non-cognitive skills

Non Cognitive Skills	Boys		Girls		Total	
	M	SD	M	SD	M	SD
Self efficacy	72,11%	13,05%	66,00%	14,88%	69,74%	14,06%
Need for achievement	71,07%	10,87%	76,84%	12,72%	73,30%	11,92%
Risk taking	17,94%	5,21%	15,32%	5,34%	16,93%	5,40%
Social orientation	71,06%	14,66%	68,05%	13,90%	69,90%	14,40%
Persistence	74,68%	16,92%	75,17%	12,10%	74,87%	15,19%
Motivating	65,85%	11,52%	65,68%	18,28%	65,78%	14,45%
Analyzing	62,11%	17,35%	57,16%	17,21%	60,28%	17,41%
Pro activity	78,97%	12,03%	76,84%	18,12%	78,18%	14,56%
Creativity	59,95%	18,89%	52,60%	22,85%	57,03%	20,79%

The skill of *Pro-activity* is the most developed skill according to students perceptions ($M = 78.18\%$, $SD = 14.56$), meaning that quite often they show willingness to take action in school activities, show ability to tackle problems in the school or family environment or execute new ideas. The rate of *Pro-activity* of students is relatively high and significantly affected by the entrepreneurial intention factor ($F_{2,144} = 10.949$, $p < 0.001$). More specifically, students responding that they would like to become entrepreneurs in the future are the students that have a considerably higher level of *Pro-activity* ($M = 84.40\%$, $SD = 11.44\%$) comparing to the students that are not sure of becoming entrepreneurs in the future ($M = 79.23\%$, $SD = 16.81\%$), while the ones that don't want to become entrepreneurs are the students with the lowest level of *Pro-activity* ($M = 73.36\%$, $SD = 14.43\%$), (Table 4). The skill of *Persistence* ($M = 74.87\%$, $SD = 15.19\%$) proves the ability of students to continue their effort despite setbacks or objections. Students do not give up trying finishing an exercise that they find difficult. They continue playing a game that they don't feel skilled enough and they have the same attitude of *Persistence* when they feel tired and they have not finished with their homework yet, as they decide not to give up. The *Need for Achievement* is an also high developed skill ($M = 73.3\%$, $SD = 11.92\%$), proving that students quite often are happy to get good grades, they feel disappointed when they are not able to finish an exercise and they feel great when they do and also feel some kind of satisfaction when finishing their task first in the class. The rate of the *Need for Achievement* is significantly higher ($t = 3.041$, $df = 156$, $p < .005$) in girls ($M = 76.84\%$ $SD = 12.72\%$) compared to boys ($M = 71.07\%$ $SD = 10.87\%$). Analysis shows that students have developed a satisfactory level of *Social Orientation* ($M = 69.90\%$ $SD = 14.40\%$). Specifically, students feel comfortable in making new friends and they are not shy when they meet other children for first time taking initiative to talk first in a new social interaction. Also sometimes they feel that it is not that difficult to make friends from other schools. The rate of *Social Orientation* of students is relatively high and significantly affected by the entrepreneurial intention factor ($F_{2,145} = 12.323$, $p < 0.001$). More specifically, students responding that they would like to become entrepreneurs in the future are the students that have a considerably higher level of *Social Orientation* ($M = 76.21\%$, $SD = 12.89\%$) comparing to the students that are not sure of becoming entrepreneurs in the future ($M = 73.08\%$, $SD = 14.07\%$), while the ones that don't want to become entrepreneurs are the students

with the lowest level of *Social Orientation* ($M = 64.68\%$, $SD = 13.99\%$). skill of *Motivating* ($M = 65.78\%$, $SD = 14.45\%$) shows that the students feel quite often like inspiring and stimulating others, believing that sometimes the other students choose them as leaders of a team, or listen their ideas. *Self efficacy* skill is quite high ($M = 69.74\%$, $SD = 14.06\%$) meaning that students believe in their own ability, they feel self confident and they are able to control their success. Students responded that they often defend their opinion and they are able to try to answer in the class a question that they are not certain for the answer. They don't change their opinion easily when most of the other classmates have a different one. Also they feel confident when the teacher has a question for them even if they have not studied enough. The rate of *Self efficacy* skill is significantly affected by the entrepreneurial intention factor ($F_{2,142} = 22.968$, $p < 0.001$). More specifically, students responding that they would like to become entrepreneurs in the future are the students that have a considerably higher level of *Self efficacy* ($M = 87.50\%$, $SD = 5.10\%$) comparing to the students that are not sure of becoming entrepreneurs in the future ($M = 72.34\%$, $SD = 9.2\%$), while the ones that don't want to become entrepreneurs are the students with the lowest level of *Self efficacy* ($M = 64.02\%$, $SD = 14.47\%$). The rate of *Self efficacy* is significantly higher ($t = 2.665$, $df = 150$, $p < .01$) in boys ($M = 72.11\%$ $SD = 13.05\%$) compared to girls ($M = 66\%$ $SD = 14.88\%$). The skill of *Analyzing* ($M = 60.28\%$, $SD = 17.41\%$) is also comparatively high showing that the ability to assess different (complex) situations, to find solutions and to make correct, well-balanced choices is often emerging. The rate of *Analyzing* of students is significantly affected by the entrepreneurial intention factor ($F_{2,144} = 23.865$, $p < 0.001$). Students willing to become entrepreneurs in the future are the students that have a considerably higher level of *Analyzing* ($M = 78.21\%$, $SD = 4.22\%$) comparing to the students that are not sure for a future entrepreneurial initiative ($M = 65.52\%$, $SD = 15.17\%$), while students that don't see themselves as entrepreneurs have the lowest level of *Analyzing* ($M = 52.08\%$, $SD = 16.05\%$). The skill of *Creativity* is developed in a satisfactory level ($M = 57.03\%$ $SD = 20.79\%$) and proves the ability of the students to generate many possible solutions to a particular problem and to turn them into new opportunities. Students said that they sometimes they try to solve mathematical problems using another way than the usual one. Also they feel that they can think of a new game or think in a different way in general. The rate of creativity is significantly higher ($t = 2.172$, $df = 152$, $p < .05$) in boys ($M = 59.95\%$ $SD = 18.89\%$) compared to girls ($M = 52.60\%$ $SD = 22.85\%$). The skill of *Risk taking* ($M = 16.93\%$, $SD = 5.40\%$) shows that only sometimes the students answer a question in a test feeling not so sure about their response. Also the willingness to risk a loss or the ability deal with uncertain situations appears sometimes. The rate of *Risk taking* is significantly higher ($t = 3.056$, $df = 156$, $p < .005$) in boys ($M = 17.94\%$ $SD = 5.21\%$) compared to girls ($M = 15.32\%$ $SD = 5.34\%$).

Table 4. Means and Standard Deviations of the non - cognitive skills according to students' entrepreneurial intention

Entrepreneurial intention	No		May be		Yes	
	M	SD	M	SD	M	SD
Self efficacy	64.02%	14.74%	72.34%	9.22%	87.50%	5.10%
Need for achievement	71.09%	12.03%	75.32%	11.13%	78.85%	10.69%
Risk taking	15.98%	4.82%	17.07%	4.16%	18.53%	6.22%
Social orientation	64.68%	13.99%	73.08%	14.07%	76.21%	12.89%
Persistence	72.50%	14.82%	75.51%	15.78%	76.92%	15.21%
Motivating	65.31%	15.11%	66.59%	13.17%	66.83%	7.82%
Analysing	52.08%	16.05%	65.52%	15.17%	78.21%	4.22%
Pro activity	73.36%	14.43%	79.23%	16.81%	84.40%	11.44%
Creativity	62,04%	22,18%	51,56%	20,03%	64,10%	4,00%

9. DISCUSSION

In Greece, even if entrepreneurship education is part of the strategy for the New School since 2010, it is explicitly recognized only in the last year of High School as part of the subject 'Basic Principles of Organization and Business Administration' (Eurydice network). In the national curriculum of the primary and early secondary education in Greece, there are no courses directly related to entrepreneurship but only some references to it through other related subjects. Same

situation in basic school level in Denmark, where there is no specific subject called Entrepreneurship. Therefore entrepreneurship is integrated into the curriculum as an element or in special activities which are often interdisciplinary (Vestergaard, Moberg and Jørgensen). In other studies is also found out that entrepreneurship education in practice is rather limited since it is not a part of normal schoolwork. Instead, separate programs and theme days are carried out to fulfil the requirements set out in the curricula (Seikkula-Leino, Ruskovaara and Ikävalko). Thus, the evaluation of measures that may stimulate successful entrepreneurship is a matter of high interest to both academics and practitioners alike. One evident measure that is used worldwide concerns entrepreneurship education programs. The evaluation studies that have been performed so far only find modest effects at most. This seems to suggest that these programs are ineffective as a policy tool to promote entrepreneurial intentions or competencies (Rosendahl Huber, Sloof and Van Praag). Investments in cognitive skills are relatively more important during the pre-school years, whereas the school years play an important role in the development of non-cognitive skills (Rosendahl Huber, Sloof and Van Praag). This study depicts an important development of cognitive entrepreneurial skills for the primary school students. Students seem to have developed a good level of knowledge in the entrepreneurial field they were examined, answering correctly more than half of the cognitive questions. Concerning the non cognitive skills, the most developed ones seem to be the skill of *Pro-activity* which the most developed according to students' perceptions, the skill of *Persistence*, *Self-efficacy* skill the *Need for achievement*, *Social orientation*. The skills that have not been developed so much, comparing to the previous ones are the skill of *Motivating*, the skill of *Analyzing*, the skill of *Creativity*, and a bit lower the skill of *Risk taking*. Also, trying to estimate the factor that possibly affect the entrepreneurial intention of the students the results show that the *Cognitive skills*, the skill of *Self-efficacy*, the skills of *Social orientation*, *Analyzing* and *Pro-activity* significantly affect the *Entrepreneurial Intention* of the students meaning that students that have developed these skills more are more likely to undertake entrepreneurial initiatives in the future, comparing to the students that have a lower level of development of these skills. Common researches below recognize the effect of some of the above and some other factors on students' Entrepreneurial Intentions. According to Shook, Bratianu; Guerrero, Rialp, & Urbano; Liñán, Rodríguez-Cohard, & Ruenda-Cantuche, *Self-efficacy* is a power or capacity to produce a desired effect, and is one of the key factors of the entrepreneurial intention. Also, Sánchez states that *Self-efficacy* is an important determinant of successful entrepreneurial behaviours. The research carried out by Sánchez proposes the similar results: the main factors of entrepreneurial intention are personality traits, measured by *Risk taking* and *Self-efficacy*. *Risk taking* is the tendency of an individual to take risks. The individuals who tolerate higher risk are more inclined to entrepreneurship while the ones who tolerate lower risk are less inclined to entrepreneurship. Common empirical research supports the theoretical proposition of a positive correlation between risk attitudes and the decision to become an entrepreneur (see, e.g., Cramer, Hartog, Jonker, and Van Praag; Caliendo, Fossen, and Kritikos). *Pro-activity* or the propensity to act is associated with entrepreneurial behavioural intentions (Pilllis and Reardon), (Segal, Borgia and Schoenfeld). *Need for achievement* is one of the widely-spread indicators showing whether a person is inclined to entrepreneurship or not (Remeikiene, Startiene and Dumciuviene). It can be concluded that entrepreneurial intention is mostly influenced by personal factors (personality traits) that can be developed acquiring entrepreneurial education. The main factors that affect the entrepreneurial intentions are: *Self-efficacy*, *Risk taking*, *Behavioural control*, *Need for achievement*, *Pro-activity*, *Locus of control* (Remeikiene, Startiene and Dumciuviene).

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