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# **Students' attitudes towards the subject of entrepreneurship in education**

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## **Abstract**

Entrepreneurship is frequently supplementary with the establishment of new businesses, and the creators of new businesses are so so-called 'entrepreneurs'. Higher education institutions are required to establish the ways in which they respond to the social and economic needs of society sealing for development of quality, entrepreneurship and innovation. The main aim of this paper is to investigate students' attitudes towards the subject of entrepreneurship in education. The study focuses on students' outlooks as they relate to Students Attitudes toward Entrepreneurship Courses (SATEC) scale. SATEC scale. The instrument is SATEC scale consists of eight dimensions named Affect, Cognitive Competence, Understanding, Effort, Interest, Difficulty, Value and knowledge and 45 attributes/ items.

The sample comprised of 245 interviewees from the department of Business administration in the University of Macedonia, of whom 16 were men and 229 were women. The results reveal either natural or positive attitudes for all 45 attributes.

## **1. Theoretical Framework**

Higher education institutions are seeking for quality and excellence (Anastasiadis & Christoforidis, 2019; Anastasiadis et al., 2016; Anastasiadou & Anastasiadou, 2019; Anastasiadou & Zirinoglou, 2015a; Anastasiadou & Zirinoglou, 2015b; Anastasiadou 2015; Anastasiadou & Zirinoglou, 2014a; Anastasiadou et al. 2016b; Anastasiadou et al., 2016c; Anastasiadis et al., 2016; Anastasiadou, 2018d; Taraza, & Anastasiadou, 2019a; Anastasiadou, & Taraza, 2019a). Many studies have been carried out pointing out the need quality of education (Taraza & Anastasiadou, 2019a; Taraza & Anastasiadou, 2019b; Taraza & Anastasiadou, 2019c; Papadaki, & Anastasiadou, 2019; Anastasiadou & Zirinoglou, 2015b; Anastasiadou, 2018c; Anastasiadou & Taraza, 2019b; Anastasiadou & Taraza, 2019c; Anastasiadou et al., 2016b; Anastasiadou, & Taraza, 2020a; Anastasiadou, 2019 and Anastasiadou, & Taraza, 2020b). Others claimed for

headship and innovation (Anastasiadou, 2011b) while other for entrepreneurship (Giossi et al., 2019). Higher education institutions are required to demonstrate the ways in which they respond to the social and economic needs of society and connected quality in education with entrepreneurship and innovation in education (Giossi et al., 2019). Bacigalupo et al. (2016) claimed that according to the European Commission's Entrepreneurship Competence Framework entrepreneurship as a transversal key competence applicable by individuals as well as society. In addition Higher education institutions are vital to establish the ways in which they respond to the economic needs of society regarding graduate employability enhancement, unemployment reduction and students as well as dropout. The need for entrepreneurship development is one way road for higher education institutions. Higher education institutions have to meet this goal. Students must be prepared with the appropriate qualifications and skills to take their lives into their hands and develop enterprises both in national and international level. In addition they have to be prepared to recognize a business opportunity, understand the sources of new innovative ideas, to be aware of reasons for the success or failure of a new business, as well as to know the reasons for the success or failure of a new business, to recognize, a business plan, to design of the production process and operation of a business, to do a financial analysis of a business, to know the sources of funding, to evaluate the possible and possible ways of marketing, to analyze the possibilities of entering the market and to realize ethical position of enterprises.

## **2. The purpose of the study**

The main aim of this paper is to investigate students' attitudes towards the subject of entrepreneurship in education. In Greece students aiming to work as kindergartens in the public sector. Due to financial crisis there were any public appointments and graduates students faced unemployment for many years (Masouras, 2019). The solution should and could be found in the private sector. Graduates need to look in the direction of their own initiative and business.

In this light, the Department of Early Childhood Education in the University of Western Macedonia, Greece, has decided to offer quality assurance and innovation courses in education in recent years. Thus this study will focus on students' attitudes toward the subject of entrepreneurship and more especially students' feelings concerning entrepreneurship courses, students' level of individual interest in entrepreneurship courses, students' attitudes about the difficulty of entrepreneurship course as a subject,

students' attitudes about the usefulness, relevance, and worth of Entrepreneurship in personal and professional life, students' attitudes about their knowledge related to the subject of entrepreneurship, students' attitudes about their intellectual knowledge and skills when applied to entrepreneurship courses, their perceptions about the amount of work they expend to learn entrepreneurship courses.

### 3. The instrument

The study used a 5-point response scale, higher scores then correspond to more positive attitudes. The scale names Students Attitudes toward Entrepreneurship Courses (SATEC) consists of 45 items grouped into eight components identified students attitudes toward entrepreneurship courses (Anastasiadou & Ziriniglou, 2020). The eight components structure were named Affect (6 items), Cognitive Competence (13 items), Understanding (6 items), Effort (4 items), Interest (4 items), Difficulty (9 items), Value (9 items) and Knowledge (6 items). Additional items ask for relevant demographic characteristics.

### 4. Profiles of the respondents

The demographic profiles includes the following characteristics of the despondences; gender, age and year of education. The demographic profiles shown in Table 1 is based on frequency and relative frequency distributions.

The sample comprised of 245 interviewees from the Department of Early Childhood Education from School of Humanities and Social Sciences, University of Western Macedonia, of whom 16 (6.5%) were men and 229 (93.5%) were women. With respect to the ages of participants, 14 (5.7%) of them were 18 years old, 16 (6.5 %) of them were 19 years old, 30 (12.2 %) of them were 20 years old and, finally, 185 (77.5%) were 21 years or more. With respect to their year of studies, 14 (5.7%) of them were during their first year of their studies, 16 (6.5 %) of them were during the second year, 30 (12.2 %) of them were during the third year 176 (71.8 %) of them were during the fourth year and 9 (3.7%) of them were during the fifth year and above (Table 1).

**Table 1:** Demographic data of the sample (N = 245)

| <b>,Variables</b> | <b>Classes</b> | <b>N=245</b> | <b>%</b> |
|-------------------|----------------|--------------|----------|
| Gender            | Male           | 16           | 6.5      |

|                 |                      |     |      |
|-----------------|----------------------|-----|------|
|                 | Female               | 229 | 93.5 |
| Age             | 18 years             | 14  | 5.7  |
|                 | 19 years             | 16  | 6.5  |
|                 | 20 years             | 30  | 12.2 |
|                 | 21 years or more     | 185 | 75.5 |
| Year of Studies | First year           | 14  | 5.7  |
|                 | Second year          | 16  | 6.5  |
|                 | Third year           | 30  | 12.2 |
|                 | Fourth year          | 176 | 71.8 |
|                 | Fifth year and above | 9   | 3.7  |

## 5. Results

Reliability test: Before proceeding with the analysis, a reliability test was carried out to ensure that the data collected is reliable. The Cronbach' alpha coefficient is calculated to measure the reliability of the instrument SATEC. Cronbach' alpha coefficient was equal to 0.895 and it was above the cutoff point of 0.70 and revealed that SATEC is a reliable instrument (Alevriadou, et al. 2014; Anastasiadou, 2006; Anastasiadou, 2011a; Anastasiadou 2012a, Anastasiadou, 2012b; Anastasiadou, 2012c; Anastasiadou, 2013; Anastasiadou; 2014; Anastasiadou and Anastasiadis, 2011; Anastasiadou & Zirinoglou, 2020; Anastasiadou et al., 2010a, Anastasiadou et al., 2010b, Croanbach, 1984).

The following section presents the mean and the standard deviation of items referring to students' feelings concerning statistics. These items contributed to the Affect dimension of SATEC scale (Table 2). It should be noted that the highest mean value involves attribute/ item Aff3 (M=3.62, SD=0.859) referring to whether students get frustrated going over Market and Competition Analysis following by attribute/ item Aff5 referring to whether students enjoy taking entrepreneurial courses (M=3.53, SD=0.827). On the other had the lowest mean value involves attribute/ item Aff4 (M=2.89, SD=0.989) (Table 2).

**Table 2:** Affect – students' feelings concerning statistics

| Affect | Affect – students' feelings concerning statistics (6 items).    | M    | SD    |
|--------|---|------|-------|
|        | Aff1: I like the subject of entrepreneurship in education.      | 3.20 | 1.001 |
|        | Aff2: I do not feel insecure when I have to do a business plan. | 3.44 | .993  |

|   |      |      |
|---|------|------|
| Aff3: I do not get frustrated going over Market and Competition Analysis.                               | 3.61 | .859 |
| Aff4: I do not be under stress during the design of the Production Process and Operation of a business. | 2.89 | .989 |
| Aff5: I enjoy taking entrepreneurial courses.   | 3.53 | .827 |
| Aff6: I am not scared when I have to do the financial analysis of a business.                           | 3.44 | .924 |

The following section presents the mean and the standard deviation of items referring to students' attitudes about their intellectual knowledge and skills when applied to entrepreneurship courses. These items contributed to the Cognitive Competence dimension of SATEC scale (Table 3). It is worth mentioning that the highest mean value involves attribute/ item CoC9 (M=3.89, SD=0.861) referring to whether students know the stages of entrepreneurship following by attribute/ item CoC10 (M=3.84, SD=0.850) referring to whether students know the obstacles to starting a new business. On the other had the lowest mean value involves attribute/ item CoC5 (M=3.24, SD=1.087) referring to whether students can develop a business model (Table 3).

**Table 3:** Cognitive Competence – students' attitudes about their intellectual knowledge and skills when applied to entrepreneurship courses

| Cognitive Competence | Cognitive Competence – students' attitudes about their intellectual knowledge and skills when applied to entrepreneurship courses (13 items). | M    | SD    |
|----------------------|---|------|-------|
|                      | CoC1: I have no trouble understanding the business plan preparation process because of how I think.   | 3.70 | .991  |
|                      | CoC2: I know what's going on entrepreneurship courses.  | 3.71 | 1.022 |
|                      | CoC3: I do not make a lot of math errors in the analysis of financing methods.  | 3.42 | .995  |
|                      | CoC4: I do business opportunity assessment.   | 3.34 | .870  |
|                      | CoC5: I can develop a business model.   | 3.24 | 1.087 |
|                      | CoC6: I understand the reasons for a company's survival or not.   | 3.64 | .972  |
|                      | CoC7: I do not find it difficult to understand entrepreneurial concepts.  | 3.61 | 1.017 |
|                      | CoC8: I know the business risks.  | 3.40 | 1.033 |
|                      | CoC9: I know the stages of entrepreneurship.  | 3.89 | .861  |
|                      | CoC10: I know the obstacles to starting a new business.   | 3.84 | .850  |
|                      | CoC11: I know the basic ingredients of a successful business idea.  | 3.62 | .957  |

|   |      |      |
|---|------|------|
| CoC12: I know the reasons for the success or failure of a new business. | 3.42 | .962 |
| CoC13: I know the sources of funding.                                   | 3.59 | .857 |

The following unit presents the mean and the standard deviation of items referring to students' attitudes about their understanding toward entrepreneurship courses. These items contributed to the Understanding diminution SATEC scale (Table 4). It is worth mentioning that the highest mean value involves attribute/ item Und4 (M=4.02, SD=0.979) referring to whether students can analyze the possibilities of entering the market following by attribute/ item Und3 (M=3.93, SD=0.891) referring to whether students know the reasons for the success or failure of a new business. On the other had the lowest mean value involves attribute/ item Und1 (M=3.18, SD=0.947) referring to whether students understand the sources of new innovative ideas (Table 4).

**Table 4:** Understanding - students' attitudes about their understanding toward entrepreneurship courses

| Understanding | Understanding - students' attitudes about their understanding toward entrepreneurship courses (6 items). | M    | SD    |
|---------------|--|------|-------|
| Und1:         | I understand the sources of new innovative ideas.  | 3.18 | .947  |
| Und2:         | I understand the need to develop a business plan.  | 3.42 | .966  |
| Und3:         | I know the reasons for the success or failure of a new business.   | 3.93 | .891  |
| Und4:         | I can analyze the possibilities of entering the market.  | 4.02 | .979  |
| Und5:         | I can analyze the ways of financing.   | 3.59 | 1.151 |
| Und6:         | I can evaluate the possible and possible ways of marketing.  | 3.45 | 1.202 |

The following unit presents the mean and the standard deviation of items referring to amount of work the student expends to learn entrepreneurship courses. These items contributed to the Effort dimension of SATEC scale (Table 5). It is worth mentioning that the highest mean value involves attribute/ item Eff3 (M=3.62, SD=0.900) referring to whether students plan to study hard for every entrepreneurship courses' test following by attribute/ item Eff2 (M=3.43, SD=1.064) referring to whether students plan to work hard in my entrepreneurship courses. On the other had the lowest mean value involves attribute/ item Eff4 (M=2.84, SD=1.074) referring to whether students plan to attend every class session (Table 5).

**Table 5:** Effort - amount of work the student expends to learn entrepreneurship courses

| Effort | Effort - amount of work the student expends to learn entrepreneurship courses (4 items). | M    | SD    |
|--------|--|------|-------|
|        | Eff1: I plan to complete all of my entrepreneurial assignments.                          | 3.13 | 1.068 |
|        | Eff2: I plan to work hard in my entrepreneurship courses                                 | 3.43 | 1.064 |
|        | Eff3: I plan to study hard for every entrepreneurship courses' test.                     | 3.62 | .900  |
|        | Eff4: I plan to attend every class session.  | 2.84 | 1.074 |

The following unit presents the mean and the standard deviation of items referring to amount of work the student expends to learn entrepreneurship courses. These items contributed to the Interest dimension of SATEC scale (Table 6). It is worth mentioning that the highest mean value involves attribute/ item Int3 (M=3.75, SD=0.991) referring to whether students are interested in understanding business incentives following by attribute/ item Int4 (M=3.64, SD=1.087) referring to whether students are interested in learning the development of market entry opportunities. On the other had the lowest mean value involves attribute/ item Int2 (M=3.44, SD=0.972) referring to whether students are interested in using entrepreneurial concept (Table 6).

**Table 6:** Interest – students' level of individual interest in entrepreneurship courses' (4 items).

| Interest | Interest – students' level of individual interest in entrepreneurship courses' (4 items).    | M    | SD    |
|----------|--|------|-------|
|          | Int1: I am interested in being able to communicate business ideas and information to others. | 3.62 | .901  |
|          | Int2: I am interested in using entrepreneurial concept.                                      | 3.44 | .972  |
|          | Int3: I am interested in understanding business incentives.                                  | 3.75 | .991  |
|          | Int4: I am interested in learning the development of market entry opportunities.             | 3.64 | 1.087 |

The following unit presents the mean and the standard deviation of items referring to amount of work the student expends to learn entrepreneurship courses. These items contributed to the Difficulty dimension of SATEC scale (Table 7). It is worth mentioning that the highest mean value involves attribute/ item Dif7 (M=3.84, SD=0.953) referring to whether entrepreneurship does not involves a lot of risk following by attribute/ item Dif8 (M=3.81, SD=0.892) referring to whether



entrepreneurship course is highly technical. On the other had the lowest mean value involves attribute/ item Dif3 (M=3.22, SD=1.141) referring to whether the analysis of the reasons for the survival of a new business is easy to understand (Table 7).

**Table 7:** Difficulty – students’ attitudes about the difficulty of entrepreneurship course as a subject

| Difficulty | Difficulty – students’ attitudes about the difficulty of entrepreneurship course as a subject (9 items). | M    | SD    |
|------------|--|------|-------|
|            | Dif1: Analyzing the reasons for failure / success of new businesses is easy to understand.               | 3.42 | 1.059 |
|            | Dif2: The analysis of the concepts of entrepreneurship and innovation is easy to understand.             | 3.40 | .912  |
|            | Dif3: Analyzing the reasons for the survival of a new business is easy to understand.                    | 3.22 | 1.141 |
|            | Dif4: Innovation analysis is not a complicated process.  | 3.67 | 1.020 |
|            | Dif5: Entrepreneurship is a subject quickly learned by most people.                                      | 3.58 | 1.059 |
|            | Dif6: Learning entrepreneurship course do not require a great deal of discipline.                        | 3.33 | 1.121 |
|            | Dif7: Entrepreneurship does not involves a lot of risk   | 3.84 | .953  |
|            | Dif8: Entrepreneurship course is highly technical.   | 3.81 | .892  |
|            | Dif9: Most people have to learn a new way of thinking to do Entrepreneurship courses.                    | 3.58 | .991  |

The following unit presents the mean and the standard deviation of items referring to amount of work the student expends to learn entrepreneurship courses. These items contributed to the Value dimension of SATEC scale (Table 8). It is worth mentioning that the highest mean value involves attribute/ item Val7 (M=4.08, SD=0.937) referring to whether students believe that entrepreneurship concepts are not rarely presented in everyday life following by attribute/ item Val6 (M=3.90, SD=0.892) referring to whether students use entrepreneurship concepts in their everyday life. On the other had the lowest mean value involves attribute/ item Val3 (M=3.18, SD=0.918) referring to whether the entrepreneurship skills will make students more employable (Table 8).

**Table 8:** Value – students’ attitudes about the usefulness, relevance, and worth of Entrepreneurship in personal and professional life

| Value | Value – students’ attitudes about the usefulness, relevance, and worth of Entrepreneurship in personal and professional life (9 items). | M    | SD    |
|-------|---|------|-------|
|       | Val1: Entrepreneurship is not a worthless subject.  | 3.41 | .990  |
|       | Val2: Entrepreneurship should be a required part of my professional training.   | 3.56 | .883  |
|       | Val3: Entrepreneurship skills will make me more employable.   | 3.18 | .964  |
|       | Val4: Entrepreneurship is useful to the typical teacher.  | 3.52 | .893  |
|       | Val5: Entrepreneurship thinking is not applicable in my life outside my job.  | 3.42 | .979  |
|       | Val6: I use entrepreneurship concepts in my everyday life.  | 3.90 | .918  |
|       | Val7: Entrepreneurship concepts are not rarely presented in everyday life.  | 4.08 | .937  |
|       | Val8: I will have application for entrepreneurship in my profession.  | 3.48 | 1.182 |
|       | Val9: Entrepreneurship is not irrelevant in my life.  | 3.44 | 1.179 |

The following unit presents the mean and the standard deviation of items referring to amount of work the student expends to learn entrepreneurship courses. These items contributed to the Knowledge dimension of SATEC scale (Table 9). It is worth mentioning that the highest mean value involves attribute/ item Kno6 (M=3.45, SD=1.049) referring to whether students have the knowledge on the process of entrepreneurship following by attribute/ item Kno5 (M=3.39, SD=0.996) referring to whether students know the processes of innovation & creativity. On the other had the lowest mean value involves attribute/ item Kno3 (M=2.96, SD=1.088) referring to whether students have the understanding of the workings of the economy (Table 9).

Table 9: Knowledge – students’ attitudes about their knowledge related to the subject of Entrepreneurship

| Knowledge | Knowledge – students’ attitudes about their knowledge related to the subject of Entrepreneurship (6 items). | M    | SD    |
|-----------|---|------|-------|
|           | Kno1: I can understand entrepreneurship subject.  | 3.38 | 1.084 |
|           | Kno2: I can identify entrepreneurship opportunities.  | 3.32 | .924  |
|           | Kno3: I have the understanding of the workings of the economy.  | 2.96 | 1.088 |
|           | Kno4: I can realize ethical position of enterprises.  | 3.21 | .928  |
|           | Kno5: I know the processes of innovation & creativity.  | 3.39 | .996  |

## 6. Conclusions

The key aim of this study was to assess the kindergarten students' attitudes towards the subject of entrepreneurship in education. These students were looking to be appointment in public sector as kindergarteners. The fiscal crisis in Greece have changed the scene and post graduate students have to face unemployment. The solution can be founded in the initiative entrepreneurship. The 245 interviewees from the department of Business administration in the University of Macedonia answered whether the new courses of quality assurance, entrepreneurship and innovation In Greece students aiming to work as kindergartens in the public sector. Due to financial crisis there were any public appointments and graduates students faced unemployment for many years. The solution should and could be found in the private sector. Graduates need to look in the direction of their own initiative and business. It was expected that the students to have negative attitude toward entrepreneurship courses because all these previous years it was common sense every student in seeking for public sector employment. But the financial situation have made students to turn to other alternatives seeking for job opportunities. Students' attitudes were neutral or positive toward the 45 items grouped into eight components named Affect, Cognitive Competence, Understanding, Effort, Interest, Difficulty, Value and Knowledge.

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