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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-called 'entrepreneurs'. Higher education institutions are required to establish the ways in which they respond to the social and economic needs of society seeking 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)

,Variables	Classes	N=245	%
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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