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The Impact of Economic Crises on the Perception and Knowledge Level of Students Regarding Economic and Financial Concepts

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Economic crisis, during the past two years, has an impact on Greek students of 17 years old. Elements of the crisis have intruded on their everyday life. Economic and financial concepts constitute part of their attempt to understand the world they live in and as a result affect their educational level. This paper is an exploratory attempt to study the effects of economic crisis in the economics knowledge of Greek students using a sample of 62 Senior High School (lyceum) students. Data analyzed consists of a 30 question exam based on the Test of Economic Literacy (TEL) developed by the National Council on Economic Education (NCEE) and a questionnaire which was given at the end of the exam. The survey was conducted in two different periods in 2010-2011 & 2011-2012. Results indicate that students level of knowledge of economic and financial concepts, concerning the crisis, is considerably high compared with quantitative results from the U.S. national norming sample of the TEL.

1 Introduction

Since the beginning of the economic crisis, many aspects of life in Greece have changed. Therefore, it wouldn't be possible for Greek Senior High School (SHS) students not to be affected by the ongoing transformation of Greek society. As it is shown in a survey conducted by the Greek Children's Ombudsman, 89 % of Greek students when asked, by researchers of the same age, stated that their family life is significantly affected by the economic crisis. Additionally 92 % of them believe that the economic crisis has a significant impact on the rest of the Greek society (Greek Children's Ombudsman 2012).

Greek SHS students are facing the different aspects of crisis in multiple ways. Firstly within their families, as the Greek Children's Ombudsman (2012) reports 82% of the students say that their parents' working conditions have been somehow deteriorated. Moreover reports and articles about the economic crisis are constantly omnipresent in the mass media. On top of it, students witness the change of everyday life, especially in urban areas.

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According to our everyday school experience, students in order to understand the causes and to interpret sophisticated economic analysis about the possible ways out of the crisis, are becoming constantly more interested in Economics.

In this paper we report on an attempt, undertaken in two different SHSs, to measure students' economics knowledge. In our exploratory research we used a sample of 62 SHS students who filled in a 30 question exam based on the Test of Economic Literacy (TEL), developed by the National Council on Economic Education (NCEE) and a questionnaire which was given to them at the end of the exam. The data analysis showed a) that students' score in questions concerning economic crisis was higher than their average score in other types of questions and higher than the quantitative results from the U.S. national norming sample of the TEL and b) that students in order to fill in the 30 question Greek version of the TEL used knowledge acquired from other sources than school. However we should mention that this is a pilot research, our sample is rather small and therefore we are not able to draw any general conclusions, based on the results of this specific essay.

In the first part of the present paper we briefly outline a) the importance of mass media as an economics educational instrument, b) the concept of experiential-empirical knowledge and its usefulness in the teaching process and c) we describe the theoretical framework of TEL. In the second and more empirical part we present our data analysis whereas the last part attempts to propose a possible way of using the findings of such a survey in everyday teaching practice.

2 Theoretical framework

2.1 Alternative sources of economics knowledge

While analyzing our data we were forced to identify the importance of alternative sources of economics knowledge firstly because it was pointed out by students questionnaires and secondly

because, as we will refer to later on in greater detail, students answered correctly in subjects that are not properly or even at all included in Greek SHS's curriculum.

Beyond any doubt economic crisis has been the central focus of public discussion in Greece during the last few years. At the same time the use of electronic mass media by Greek students has been increased. One of the latest surveys concerning health behaviour in school-aged children reports that 38.3 % of Greek adolescents watch at least three hours per day TV or DVD. Moreover in 2010 the percentage of adolescents who are spending more than six hours in front of a screen of an electronic device (16.4 %) was tripled compared to the corresponding percentage in 2006, although adolescents watch less TV. Due to this finding the researchers report that there are strong indications that adolescents have been abandoning traditional media like television, in favor of PC and online information (Kokkevi et al. 2010a). Furthermore in their research concerning specifically adolescents' use of PC and internet Kokkevi et al. (2010b) report that the percentage of adolescents using the internet for more than four hours per day during the weekend was raised from 8.7% in 2006 in 27.4 % in 2010. In another research is reported that 96.3 % of adolescents aged between 13 and 17 declare that are internet users while the percentage of internet users of this age in 2002 was 41.3 % and in 2006 was 67.7 % (Focus Bari 2012). Taking into consideration the above mentioned data, researchers wanted to examine whether the economics knowledge of students participating in the survey, was enriched by information accumulated by mass media.

Bandura points out the importance of electronic mass media by arguing that: "much of the social construction of reality and shaping of public consciousness occurs through electronic acculturation" (Ziegler 2007; cit Bandura 2001, 271). Ziegler (2007) mentions that media are rapidly becoming more influential to young people than their parents or school teachers are and their role in the acculturation of adolescents have become more important than ever before. Furthermore she states that "multiple exposures to information" originated from different types of mass media have a cumulative effect on adolescents and can shape their opinion. Finally she concludes that only if we manage to have an in-depth understanding of the cumulative effect of mass media on adolescents, we will be able to specify "the power of the media on the learning process". At the same time children have an easy access to mass media, while is difficult for parents to monitor what their children are watching, especially as they are often away from home for many hours (Ziegler 2007; Raabe 2008). Therefore Raabe (2008) argues that television significantly affects the socialization of the child and the way he/she interprets his/her surroundings and that "media, especially television contribute to society's view of reality. A continuous update of society's view of itself and its cognitive horizons are

a part of this" (p. 76).

In the present circumstances mass media affects considerably adolescents' perception of the economic crisis. Schuhen (2010) conducted a survey on how university students define the causes of economic crisis and what they propose as possible solutions. In this survey participated 181 students of different semesters and majors that had to write an essay which was integrated in a questionnaire on financial literacy. Students' answers analysis shows "a clear assimilation to the argumentation structure conveyed by the media as well as the topics that have been discussed in the media over a long period of time" (p. 47). As it will be reported further down, there are indications that, in some cases, the answers of students that participated in our survey, were also influenced by the argumentation conveyed by the media. Moreover Ötsch & Kapeller (2010) argue that current economic education runs the risk of leaving "students illiterate with respect to events like the financial crisis" (p. 16).

Nowadays in Greece talking about economics often becomes synonymous with talking about politics. Arendt (2008) focuses on the fact that adolescence is an important period in someone's political socialization process in which he/she shapes a political identity. Although adolescents mostly tend to use media in an entertainment-oriented way, they also use them in order to seek political information and some researchers even consider "media powerful enough to override influences of family, neighborhood and environment" (Arendt 2008; cit Schorb & Theunert 2000).

Moreover a series of articles has been written concerning the importance of the presence of academic economists in mass media (Hamermesh 2004; Hubbard 2004; Solman 2004). The transformation of academic economists into popular "public intellectuals" mostly due to the augmentation of the number of mass media that is described by Hubbard (2004) has been a common phenomenon in Greece during the last years. Thus, this might offer a possible explanation of students' high score in questions concerning the economic crisis. Hamermesh (2004) adds that "if handled properly, the media provide academic economists with the chance to invest their time to enhance the national and global stock of knowledge about economic issues and behavior" (p. 370).

Finally we should mention that we reviewed researches and studies that took place in different countries, which at the time were facing different political and social circumstances. Therefore researchers were very cautious in using the findings of these studies in the analysis of the conditions that students in Greek society are facing nowadays. However, based on our results, we can argue that there are indications that many observations made by other researchers can be applied -up to a certain extend- in this case too.

2.2 Teaching economics in the crisis era

Economics teachers in SHS are facing a challenge: they should take advantage of the growing interest of SHS students in economics in order to help them a) learn basic economic concepts, b) better understand complex economic analysis that takes place on the media and c) attribute in the formation of new active and democratic citizens. Furthermore Hippe (2010) argues that social science education should focus on financial crises not only because they are a crucial element of modern capitalism, but at the same time “the citizenry should know how to prevent such developments which endanger its well-being in a massive way”. Simultaneously the responsibility of political and economic elites in the creation of the crisis implies that modern people should not uncritically rely on them “to promote or even to protect public welfare” (Hippe 2010).

As it can be assumed Greek SHS students have come in close touch with economic concepts in their everyday life, during the last years. Therefore it is probable that they have accumulated new experiential knowledge about economics. According to Matsagouras (2002) experiential knowledge is the set of perceptions and ways of interpreting reality that a child develops naturally through his/her everyday-life experiences. Although it is a subjective form of knowledge, is proved to be useful and functional in dealing with everyday-life's problems. Therefore didactics in order to form and teach school knowledge should not neglect experiential knowledge.

Moreover Arendt (2008) reports that Schatz & Gotz (2004) argue that adolescents show great interest in topics that are associated with their experiences from the ‘real world’. More specifically, “adolescents want clearly distinguishable and useful facts that correspond to their standard of knowledge and provide some additional value” (p. 60). Arendt concludes that “young people demand from informational content – a better fit with existing cognitive structures and needs” (p. 60). Finally Rebeck (2002) states that social and experiential knowledge not only affects students’ economics knowledge, but it can possibly offer an explanation about the difference in students’ scoring in economic tests.

In this paper we will show that there are indications that students’ participating in the research economics knowledge concerning concepts related to the economic crisis is considerably high compared with quantitative results from the U.S. national norming sample of the TEL. Finally, we will present a possible way of enriching students’ economics knowledge.

2.3 The Test of Economic Literacy (TEL)

In order to measure students’ economics knowledge we used a question exam based on the third edition of the Test of Economic Literacy (TEL), developed by the National Council on Economic Education (NCEE). According to Rebeck (2002) the TEL consists of two versions of 40 questions each

(Form A and Form B), its main purpose “is to measure student achievement in Economics knowledge”, and is extensively used in economic education research. The TEL consists of four content categories: a) fundamental concepts, b) microeconomics, c) macroeconomics and d) international economics concepts. Furthermore the questions of the TEL control the three first cognitive levels of Bloom’s taxonomy: knowledge, comprehension and application (Walstad & Rebeck 2001). As Rebeck (2002) reports the norming sample consisted of 3,288 students who filled in the Form A of the TEL and 3,955 students who filled in the Form B. 80% of students who filled in the Form A and 82% of those who filled in Form B had already taken an economics course, while the mean score of students taking Form A was 59.63% and of those taking form B was 61.25%.

For the needs of our survey we created a Greek version of the TEL that consists of 30 questions. Researchers were led to the choice of reducing the number of questions of the Greek version of the TEL based on an considerable number of surveys that have done the same in the past (Walstad & Rebeck 2001; Saunders et al. 2002; Maxwell et al. 2005; Kimmitt & Burnett 2006; Bushati 2010) and on their concern that a 40 minutes standard high-school course wouldn’t be sufficient for students to thoroughly fill in the Test and the additional questionnaire, especially due to the fact that many of the concepts that are included in the TEL, for the majority of Greek SHS students, are not a part of the SHS curriculum. However the distribution of questions in each thematic category and in each cognitive level is approximately the same with the distribution of questions in the original TEL. Finally, while translating the TEL we were based on the experience of translating the second edition of the TEL in Greek (Bousiou 1991) and in German (Beck & Krumm 1989). As Beck and Kruum (1989) mention in order to create the German version of the second edition of the TEL they had to translate the original “as literally as possible, as free as necessary”. Additionally the TEL is an educational instrument used in many different surveys in many different countries in the past (Beck & Krumm 1989; Bousiou 1991; Walstad & Rebeck 2001; Saunders et al. 2002; Bushati 2010; Hahn et al. 2010).

3 Design and implementation of the survey

The survey was conducted in two different periods in 2010-2011 & 2011-2012 in two different SHS of Kefalonia, an island of Greece, by a total of 62 students of the third class of SHS (K-12). The Greek version of TEL (TEL30) was firstly filled in, in March 2011 by 28 students that were attending the SHS of Keramies and by 18 students that were attending the SHS of Pastra. Subsequently, in March 2012, TEL30 was filled in by 16 students of the third class of the SHS of Pastra, where one of the researchers was teaching Economics that particular academic year. Out of the 62 students who filled in TEL30, 14 had attended an economics preparatory course for the university exams, while all of them had attended the

mandatory Economics course in the first class of SHS which offers an introductory but not in depth presentation of economic concepts. The concepts included in TEL are not fully covered by the curriculum of Greek SHS.

	Question/ Form of TEL	1st Class	3rd Class
1	A2	briefly	fully
2	B3	-	fully
3	A4	-	fully
4	A5	-	fully
5	A,B6	partly	fully
6	A8	-	fully
7	A,B10	very well	fully
8	B11	very well	-
9	A12	briefly	not included
10	A13	very well	partly
11	A14	very well	fully
12	A,B 15	very well	fully
13	A16	-	fully
14	A19	-	fully
15	A,B 20	partly	not included
16	A21	briefly	Partly
17	B23	-	not included
18	A,B24	very well	not included
19	A,B25	very well	not included
20	A26	-	fully
21	A27	-	not included
22	A28	very well	not included
23	A30	very well	not included
24	A,B31	-	not included
25	A33	not included	not included
26	B34	-	-
27	A,B35	-	not included
28	B38	-	not included
29	A39	-	not included
30	A40	partly	not included

Table 1: Coverage of the questions of TEL30 in the curriculum of Greek SHS

In Table 1 we present the level that each of the concepts in TEL 30 is covered during the Economics courses in the Greek SHS. When a question is characterized as “briefly covered” means that there is only a reference about that specific concept in the curriculum curriculum of Greek SHS, while when is characterized as “partly covered” means that the specific concept is analyzed, but not thoroughly. The concepts that are adequately covered are characterized as “very well covered” in the 1st class of SHS curriculum and fully covered in the 3rd class of SHS curriculum. Therefore especially the students that followed the economics course in the 3rd class of SHS were expected to be able to answer correctly the questions concerning the “fully covered” concepts. We decided to differentiate the characterization because there is a more in depth analysis of concepts in the 3rd class of SHS curriculum. The concepts that are characterized as “not included”, are those that are not taught, although they are mentioned in the economics book either of the 1st or the 3rd class of SHS.

The six highlighted lines correspond to the questions that are mostly related to concepts concerning the economic crisis. As is presented in Table 1 the majority of the students were only taught 50% of the concepts included in TEL30, in the first class of SHS approximately two years before the test was conducted. More specifically only two of the six questions related to the crisis are covered very well in the curriculum of the first class of SHS, while one of them is only briefly covered. Furthermore the curriculum in the third class of SHS only includes microeconomic concepts and as far as the questions related to economic crisis are concerned, none of them is even partly covered.

The students' mean score was 55.25%, while the mean score of those who have attended the Economics course in the third class of SHS was slightly higher (56.9%) and the mean score of those who haven't was 54.65%. Table 2 presents the distribution of students' answers, while in bold numbers is presented the number of students who answered correctly each question.

As it is already argued the majority of students had not been taught basic economic concepts, something that was made rather obvious during the analysis of the results of the test. For example the percentage of students who answered correctly the question about opportunity cost (question no. 3) was only 21%, while only 29% of students answered correctly that “a question that must be answered by people in all economic systems is how will goods and services be produced” (TEL30 question no. 6).

	Question/ Form of TEL	Cognitive Level	A	B	C	D	Blanks	Total
1	A2	II	5	13	32	12		62
2	B3	I	9	40	10	3		62
3	A4	III	7	15	27	13		62
4	A5	III	8	14	28	12		62
5	A,B6	II	4	6	7	45		62
6	A8	II	3	13	18	28		62
7	A,B10	I	56	2		4		62
8	B11	I	2		27	33		62
9	A12	III	3	29	21	9		62
10	A13	III	31		30	1		62
11	A14	II	2	2	2	56		62
12	A,B 15	III		3	54	5		62
13	A16	III	18	30	3	11		62
14	A19	III	35	11	2	14		62
15	A,B 20	III	7	3	1	51		62
16	A21	II	10	8	21	23		62
17	B23	II	16	35	7	4		62
18	A,B24	III		9	34	19		62
19	A,B25	I	3	6	12	41		62
20	A26	II	30	11	11	9	1	62
21	A27	III	32	12	5	13		62
22	A28	II	6	51	4	1		62
23	A30	III	2	27	11	22		62
24	A,B31	III	25	7	13	17		62
25	A33	I	56	6				62
26	B34	III	5	13	4	40		62
27	A,B35	III	3	34	11	14		62
28	B38	I	9	21	27	5		62
29	A39	III	14	33	7	8		62
30	A40	II	1	12	44	5		62

Table 2: Distribution of students' answers

Both these questions are fully covered in the curriculum of the 3rd class of SHS. On the other hand the percentage of correct answers in the question (no. 25) "when does a government budget deficit exist?" was surprisingly high (90.3%). Apart from the fact that the concept of deficit might be considered a complex one for SHS students, the high percentage of correct answers was difficult to be explained, because of the absence of this concept from the Greek SHS curriculum. Driven by this observation and due to the fact that since the beginning of the crisis the word deficit is in common use in daily news, the researchers focused on the questions of the TEL30 that concern concepts frequently analyzed by economists or journalists and have already become a part of Greek everyday life. In total there were six questions in TEL30 which were fulfilling the above mentioned criteria.

TEL30 Question number	Concept	1 st SHS class	3 rd SHS class	TEL 30	TEL
19	GDP	very well	not included	66%	54%
21	Aggregate demand & supply	-	not included	51%	70%
22	Unemployment	very well	not included	82,25%	64%
25	Deficit	not included	not included	90,3%	64%
26	Tax policy	-	-	64,5%	64%
30	Per capita income	briefly	not included	71%	51%

Table 3: Questions concerning concepts related to the economic crisis

Table 3 presents the results of students who filled in TEL30 in the questions that concern economic concepts related to the economic crisis. The second column presents the specific economic concept the third and the fourth column the level that this concept is covered by the Greek SHS curriculum, while the last two columns compare the results of Greek students to those of the norming sample of TEL. Students' results in these particular questions are not directly affected by the fact that 14 students attended the Economics course in the third class of SHS, as none of them is included in the curriculum. Furthermore in question no. 21 students of our sample have the lowest percentage of correct answers (51%), while it is the only one in which they have lower percentage of correct answers than those of the norming sample of the TEL. Apart from the question concerning the deficit, the other question in which students had a very high percentage of correct answers was the one concerning unemployment (question no. 22). It is interesting to mention that the exact answer to this particular question, that "an economy will typically experience a decline in its unemployment rate when there is an increase in economic growth", is one of the most commonly used phrases in the mass media during the last two years. The assumption that we made in order to explain student's high score in a question

that was not properly taught to them, is similar to the observation that Schuhen (2010) has made about the important effect that mass media have on shaping students' perceptions about the economic crisis.

In our attempt to explain Greek students' results in these particular questions and compare them to the norming sample of the TEL, we should bear in mind that a) in five questions out of this list, the percentage of correct answers is considerably higher than the mean score of Greek students and b) while the mean score of Greek students is lower than the mean score of the norming sample of the TEL, the percentage of correct answers in each of these five questions is higher than the percentage of correct answers in the corresponding questions in the norming sample of the TEL. Using the Z Test of statistical significance researchers proved that the hypothesis that students performed better in the questions concerning deficit (Z-Ratio 4.306) and per capita income (Z-Ratio 3.132) than those of the norming sample of the TEL can be accepted at the alpha level .001. Furthermore the hypothesis that students did better than those of the norming sample in the questions concerning unemployment and GDP can be accepted at the alpha level .01 and .05 respectively.

Subsequently we compared the performance of students that participated in the research, in the TEL questions that concerned the crisis, to their performance in the rest of the TEL questions. Students mean score in the questions concerning the crisis was 71% while their mean score in the rest of the questions was 51.3%. Using the t-test we made the hypothesis H0 that there was no difference between the mean scores in the two sets of questions, against the hypothesis H1 that the students' mean score in the questions concerning the crisis was higher. As this was a one-tailed test ($t=2.13$ and $p=0.021$), at the level of 5% statistical significance we rejected the hypothesis H0, therefore we concluded that there is a statistically significant difference between the students' mean scores in these two different sets of questions ($p \leq 0,05$). Unfortunately researchers didn't have access to recent data (if any) concerning the achievement of other Greek students in tests of economic literacy. Additionally, as the sample of the study is rather small, it is not possible to check if the above mentioned tendency is a general one. However it offers a possible incentive to other researchers to estimate whether this trend concerns students in other European areas that are experiencing the results of the economic crisis.

Additionally to the TEL30 Greek students had to fill in an anonymous questionnaire, in which, among others, they were asked to identify their sources of knowledge and information which helped them answering the TEL30. Students' answers in this section of the questionnaire were proved to be of great interest.

In table 4 we present students' sources of knowledge and information about economics as they were identified by them. Most students (64%) mentioned that in order to take the test they were based on

knowledge acquired during the first class of SHS Economics course. However, a considerable percentage of students (36%) did not mention this course at all, although was mandatory and many of the concepts included in the TEL, were included in the curriculum of that course too. A possible explanation might be the fact that there was a considerable time gap between the period that the course was held and the moment that students took the test. The most common alternative students' source of economic knowledge and information was the internet, as 57.3% of them mentioned. Family and television were also two different but very important sources, as students participating in the survey stated (49%). Finally, a high percentage (42.6%) of students mentioned that discussing with friends was a source of knowledge and information that helped them answer the test questions. This particular finding, though rather surprising taking into consideration that the survey concerns adolescents, corresponds to the general feeling that the economic crisis has become the basic subject among Greeks. Additionally the fact that 62% of boys questioned, mentioned their group of friends as a source of economics knowledge, corresponds to an observation that Arendt (2008) also made, that boys are more interested in politics than girls.

	Women	Men	Total
1 st class Economics Course	62.5%	66.6%	64%
3 rd Class Economics Course	22.5%	23.8%	23%
Another course	5%	14.2%	8%
Family	50%	47.6%	49%
Friends	32.5%	62%	42.6%
Television	50%	47.6%	49%
Print media	15%	28.5%	20%
Internet	50%	71.4%	57.3%
Other sources of information	20%	4.7%	14.75%

Table 4: Sources of students' knowledge and information

Based on the survey results we can conclude that students of the two SHS that the survey was conducted are aware of specific economic concepts, although they had not been thoroughly taught to them. Therefore, there are strong indications that during the years after the beginning of the crisis, students have acquired economic knowledge through alternative sources, possibly via the overexposure of specific economic concepts in the mass media. However, as this is an exploratory study, further research is necessary in order to define whether students in other parts of Greece, or even in other European countries that are experiencing the results of the economic crisis, have a similar performance in corresponding tests of economic literacy.

4 Further discussion

Nowadays, one of the priorities for economics teachers should be to specify in which ways they should

take advantage of students' experiential-empirical knowledge of economic concepts and of their possible extra interest in economics. Matsagouras (2002) states that a basic dilemma that curriculum designers are facing, is whether school knowledge should be based on scientific, on experiential-empirical knowledge or on a combination of these two. Furthermore he presents the approach of the reconstruction of experiential-empirical knowledge. According to this approach, school, should be aiming in the gradual reconstruction of students' experiential-empirical knowledge, through teachers' intervention, which should be based on the scientific knowledge. The final goal of this approach is the 'scientification' of students' experiential-empirical knowledge. The researchers argue that, in this case, students have already acquired important experiential-empirical knowledge. Subsequently, the observation by Schatz & Götz (2004), reported by Arendt (2008/09), that adolescents show great interest in topics that are associated with their experiences from the "real world", is really important. She concludes that "young people demand from informational content – a better fit with existing cognitive structures and needs" (p. 60).

Therefore, an intriguing question is how economics teachers can take advantage of students' experiential-empirical knowledge. Due to the fact that the majority of Greek SHS students, in the last class of SHS, are not going to attend an Economics course, a possible way of raising economic literacy is "to identify and evaluate the scope and accuracy of the economic content included in the standards from the disciplines most closely related to economics at the K-12 level" (Buckles & Watts 1998, p. 158), in order to design interdisciplinary interventions (Fogarty 1991; Davis 2009). It is important to be mentioned that as Buckles & Watts (1998) argue, students that are taught economic concepts only within the limits of another course, might have a partial understanding of them and that is why researchers aimed at the same time to minimize this possibility. Based on the fact that 82.25% of students answered correctly the TEL30 question about unemployment, researchers decided to teach this concept, using the approach of the reconstruction of experiential-empirical knowledge. This effort took place at the SHS of Pastra, one of the schools that the research was conducted, during the third class of SHS Sociology course, as unemployment is part of its curriculum. Students in general, were interested in the subject, willing to participate and to gain a deeper understanding of this social phenomenon.

5 Conclusion

During the last two years of heavy economic recession, the majority of Greeks are experiencing major effects in their personal life, due to the economic crisis. At the same time everyday life in Greece has changed and so did people's perception and attitude towards economics and politics. Furthermore economic concepts apart from being a major topic in the mass media, are dominating

discussions among people of different age. SHS students, as a vivid part of our society, wouldn't be possible not to be affected by the unprecedented circumstances that our country is dealing with. The findings of the previously presented survey report that there are indications that students' knowledge of economic concepts concerning the crisis is at a very satisfactory level, although these concepts often are not even a part of SHS curriculum. Students' mean score in questions concerning the crisis was 71%, while it was only 51.3% in the rest of the questions of the TEL. Therefore, according to the results of this specific research, the impact of teaching economics at school is limited, compared to the impact of alternative sources of economics knowledge. As depicted by the answers that students that participated in the survey gave us, important alternative sources of economics knowledge and information are internet, television, family and peer groups. Conclusively, this exploratory study provides an incentive for economics teachers to elaborate: a) on whether economics courses at school offer to students the adequate knowledge in order to confront the demanding needs of modern society and b) on how teaching economics at school can become more efficient. However, due to the fact that the students' sample is rather small, further research is necessary in order to have more accurate outcomes.

Simultaneously as school knowledge should take advantage of and reconstruct experiential-empirical knowledge, this is a great opportunity for economics teachers to help students better understand or correct any possible students' misconception about economic concepts. Finally, the evolution of the economic crisis revealed that, more than ever, one of the basic school's aims should be to create democratic citizens that will be able to control political and economic authorities. Under this perspective the role of Economics teacher in secondary education can be critical.

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