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Factors Affecting Economic Literacy

Serkan DİLEK
Doç. Dr., Kastamonu Üniversitesi İİBF İktisat
Associate Prof. Dr., Department of Economics, Faculty of Economics and Administrative Sciences, Kastamonu University, serkan.dilek@gmail.com, Orcid Id: 0000-0002-0393-4509
Hayrettin KESGİNGÖZ
Doç.Dr., Karabük Üniversitesi İİBF İktisat
Associate Prof. Dr., Department of Economics, Faculty of Economics and Administrative Sciences, Karabuk University, hayrettinkeskingoz@gmail.com, Orcid Id: 0000-0002-5143-4891
Ali KONAK
Dr. Öğr. Üyesi Karabük Üniversitesi İİBF İktisat
PhD, Lecturer, Department of Economics, Faculty of Economics and Administrative Sciences, Karabuk University, doktor_dr77@hotmail.com, Orcid Id: 0000-0003-1804-8339
Suha HALICIOĞLU
Yüksek Lisans, Kastamonu Üniversitesi SBE İktisat
MSc, Department of Economics, Institute of Social Sciences, Kastamonu University
suhahalicioglu@gmail.com

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Factors Affecting Economic Literacy[1]

Abstract

It is generally accepted that economic literacy facilitates rational decision making and provides more accurate economic decisions. In this case, improving literacy in the economy will lead to an increase in economic efficiency and the welfare of both individuals and society. The aim of the economy is, in fact, to maximize the welfare of society and to provide economic efficiency. Therefore, it is possible to achieve economic objectives by increasing economic literacy. The objective of this search is to reveal the factors affecting economic literacy, and thus, investigate the ways of increasing economic efficiency. To reach this aim, a questionnaire was conducted to 481 people in Kastamonu and Tosya, Turkey. According to the results of the questionnaire, we found a statistically significant positive

[1] This research is the revised version of presentation which was presented in 4th SCF International Conference on Social and Economic Impacts of Globalization and Future of Turkey-EU Relations.

correlation between economic education and the interest in economics with economic literacy. However, we did not find any significant correlation between the belief in the usefulness of economic knowledge and economic literacy. Surprisingly, a statistically significant correlation between economic literacy and economic wealth could not be found.

***Keywords**: Economic Literacy, Education of Economics, Affecting, Economy.*

1. Introduction

Many scholars acknowledged that economic literacy is an important factor which helps individuals in making rational economic decisions. In the relevant literature, economic literacy is defined as "the ability to identify economic problems, alternatives, costs, and benefits; analyze the incentives at work in economic situations; examine the consequences of changes in economic conditions and public policies; collect and organize economic evidence; and weigh costs against benefits" (Yıldırım and Öztürk, 2017: 3).

In this context, economic literacy is about knowing and applying the main economic theories in making rational economic decisions. Money and individual finance dimension of economics is an issue that is always on the people's agenda to maximize their benefits. Notwithstanding, the rational and

right decisions of individual rely on consciousness and awareness of economics and its reflections. The economy affects everything in daily life, where people are looking for answers to many questions about economics. Economic preferences and decisions affect us as consumers, producers, investors, savers, and voters. For that matter, every member of society should have a certain level of knowledge, skill, and understanding of the economy.

Preferences and decisions of individuals have an impact on the whole economy. To achieve macroeconomic goals and to maximize social welfare, all citizens should have the necessary proficiency in basic economic skills.

In this study, it is aimed to search whether economic literacy affects individual income or not and reveal the factors which affect economic literacy. To this aim, a questionnaire is conducted in Kastamonu province, Turkey. By considering this survey the conclusion the more economic literacy the more income is reached. Factors such as economic education, interest in economics, and belief in the benefits of economic literacy affect economic literacy. Firstly, the literature about economic literacy is reviewed and the factors affecting economic literacy and the benefits of economic literacy is investigated. Secondly, the results of the questionnaire are discussed.

2. Economic Literacy

In the literature, there are many definitions of economic literacy (Şantaş and Demirgil, 2015:47-48). According to the North Central Regional Educational Laboratory (NCREL), economic literacy is the ability to revise the alternatives for interpreting economic problems and finding solutions to these problems, to define cost and profits, to investigate the effects of changes in economic conditions and in public policies, to gather and organize economy-related data, and to balance the profits and costs (NCREL, 2006; Gerek and Kurt, 2008). Rivlin (1999) defines economic literacy as the "rudimentary working knowledge of the concepts and language of economic activity and economic policy…". Another definition of economic literacy is evaluability to developments on the economy and its effects (Şantaş and Demirgil, 2015). Economic literacy can also be defined as the ability to use related knowledge and skills to manage financial sources effectively (Unal et al., 2015: 34). In summary, in the literature, we can witness many definitions of economic literacy. Economic literacy is generally concerned with scarcity, trade-offs, markets, and prices.

Economic literacy is important because it simplifies understanding the world and economic system, helps to make the right decisions, and directs individuals being more rational. Gerek and Kurt (2008) evaluate economic literacy as a part of economic proficiency which is necessary for

individuals to carry on their lives in a healthy and productive way. With the help of economic literacy, individuals improve their abilities to act as rational economic agents in society (Yayar and Karaca, 2017: 50). One of the main functions of economic literacy is to give people the habit of cooperating with others by providing development in economic knowledge and skill. The role of economics on individual life and the necessity of economic education is accepted by citizens. Economic education aims to develop thinking skills necessary to be an effective individual as well as to gain economic knowledge and provide social wealth. Well informed economic agents make economic decisions that enhance resource allocation and rise economic efficiency (Dutkowski et al., 2008: 2; Burke and Manz, 2011; Lusardi and Mitchell, 2010). If an individual is economically literate they should understand and discuss market forces, the creation of prices, and the results of economic policies, and omit irreversible mistakes (Burke and Manz, 2011). Though economic literacy helps individuals in making right economic decisions, it should not be seen as an ability which solves every economic problem. To increase the wealth of individual or to struggle against poverty, in addition to the increase in economic literacy, governments should regulate markets effectively, provide sufficient economic sources, and apply social and economic policies (Engelbrecht, 2008). Empirical

studies confirm that individuals see economic literacy as a valuable situation (Yıldırım and Öztürk, 2017: 7).

Rapidly changing economic and sociological conditions increase the importance of economic literacy, because today, making economic decisions are more complex and risky than past. Complexity, risks, and uncertainty have an impact on every field of life including consumption, saving, and investment preferences (Şantaş and Demirgil, 2015; Çömlekçi, 2017). The financial system and products have become extremely complex (Japelli, 2010) in the globalized world and it seems that it will be even more complicated and risky in the future. Poor economic literacy causes inefficient portfolio management, wrong choice of financial intermediaries, irreversible mistakes, and low levels of savings. For instance, Lusardi and Tufano (2009) determined that individuals who have low literacy are more likely to carry high-cost debt and live financial difficulty. For that reason, the lack of economic literacy will further income inequality (Prete, 2013). A better understanding of economic issues helps individuals increase their welfare and make the right choices. Akhan (2013) emphasized the importance of economic literacy training for individuals. Additionally, academic literature supports the importance of economic education in schools (Gratton-Lavoie and Gill, 2009; Parkison and Sorgman, 1998; Gleason and Scyoc, 1995).

Another benefit of economic literacy is the contribution to the efficient working of markets. Thanks to economic literacy, individuals prefer efficient investment opportunities, markets, etc., and set up more accurate inflations (Burke and Manz, 2011). Lusardi and Mitchell (2010) observed that individuals who have more advanced literacy are more likely to be ready for retirement. Kahya and İmamoğlu (2015) emphasized a strong relationship between economic literacy and intentions of entrepreneurship. Bayar et al. (2017: 16) explored that literacy has the potential to contribute savings. In short, increasing economic literacy should be a main public policy objective to improve welfare through better decision-making.

Empirical studies commonly found that economic literacy is at a low degree in many countries (Lusardi and Mitchell, 2010) and because of that reason, governments cannot find support from the society for their economic policies (Şantaş and Demirgil, 2015: 48; Hansen et al., 2002). Furthermore, the lower degree of economic literacy causes wrong and irreversible economic decisions of individuals, and finally, negative financial results. For example, Lusardi and Mitchel (2010) reveal that because of the lack of financial knowledge, individuals make poor retirement planning and benefit less from financial opportunities. Accordingly, individuals whose economic literacy level is low generally experience economic

difficulties in older ages. Economic education needs to be widespread to reduce income inequality, to reach macro- and microeconomic targets such as efficient allocation (Dilek et al., 2016).

3. Economic Literacy Levels and Factors Affecting Economic Literacy

Since 1985, high school students are taking economics classes which includes basics of microeconomic and macroeconomic analyses in the United States of America (USA) (Gratton-Lavoie and Gill, 2009). Besides, the Test of Economic Literacy (TEL), which is a standardized test, is used to measure economics understanding of USA High School students and monitor the effectiveness of this teaching (Walstad et al., 2013; Whitehead and Halil, 1991; Nelson and Sheffrin, 1991) while the Council for Economic Education (CEE) is working to enhance the economic literacy of American citizens (Grimes et al., 2010: 5). In primary and secondary schools of USA, economics is placed under social sciences courses. Economic education is generally considered as a part of citizenship education (Yıldırım and Öztürk, 2017). Japelli (2010) explore that human capital is highly correlated with economic literacy and individuals who live in countries with more generous social security systems are less economically literate. Generally, academic researches report a low degree of

economic literacy in the world (Lusardi and Mitchell, 2010; Hansen et al., 2002; Şantaş and Demirgil, 2015).

Some empirical researches reveal that economic literacy is necessary for society and the wealth of nations (Yıldırım and Öztürk, 2017: 3). Still, economic literacy is at a low level in Turkey (Yıldırım and Öztürk, 2017: 3) and other countries such as the USA (Lusardi and Mitchel, 2010). Despite this importance, usually, individuals evaluate economics as a strange and unintelligible area that concerns with money and finance. Some individuals can make their decisions without having sufficient economic and financial knowledge (Lusardi and Mitchell, 2010). Yıldırım and Öztürk (2017) conducted a survey on experts who had a PhD degree. According to their results, participants believed that economic education is insufficient in Turkey. Yet, economics is related to the daily decisions of individuals to meet their needs and maximize their benefits.

There are two ways of increasing economic literacy. First one is economic education which includes common and widespread population. The second one is focusing on daily life events (Şantaş and Demirgil, 2015: 49). Though, the effectivity of economics courses is another question. In some surveys, it is revealed that the difference in the scores of individuals who take economic courses and who did not take is very little (Hansen et al, 2002: 463). Wood and Doyle (2002)

find out that employees who had taken at least one economic course have better economic literacy test performances than employees who had not taken economic courses at all. Other researches like Wood and Doyle (2010), as well as Gleason and Scyoc (1995), confirm that the level of education is positively correlated with economic literacy.

Researches show that there exist many factors affecting economic literacy. Gerek and Kurt (2011) applied factor analysis and revealed four sub-dimensions which are economic knowledge, economic rationality, social economic reflections, and individual economy planning. Merwe (2012) states that human capital, economic education, training, experience and age, income and investment, and gender and race are factors which affect economic literacy.

Education and Skills: As it is stated before, education is one of the main factors that have an impact on economic literacy. Mathematical and quantitative skills and literacy lead to a higher performance on economic education (Schuhman et al., 2005). According to Japelli (2010), there is a positive relationship among one's economic competency with their knowledge and skills. The economic education level of a teacher is linked to economic literacy (Walstad and Soper, 1988). Dilek et al. (2016) spots that economic education is strongly linked with economic literacy and emphasized that economic courses should be given in all departments of

universities because of benefits to society. Although economic literacy occupies an important place in the whole economy, necessary attention is not granted to economic education except administrative and economics faculties in Turkey (Gerek and Kurt, 2011: 62). According to Lusardi and Mitchell (2005), Most of Blacks and Hispanics had difficulty in answering questions and this is due to low schooling rates of Blacks and Hispanics. Gümüş et al. (2017) state that education of entrepreneurship strengthens entrepreneurship intentions and cause growth in the economy.

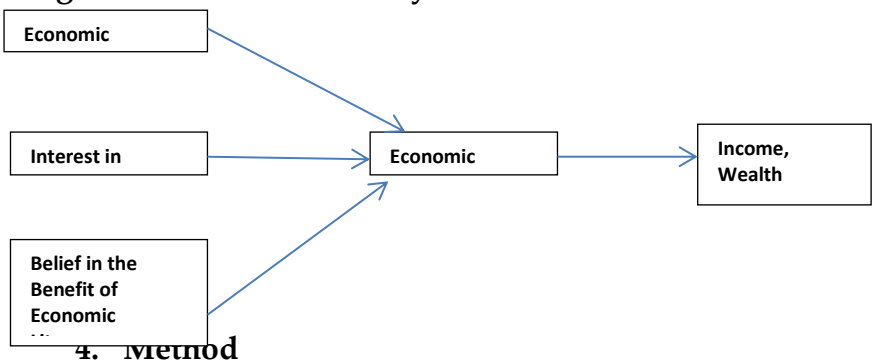
Institutional Factors: Institutional factors such as social security systems are important factors for economic literacy (Japelli, 2010). According to the researches, individuals obtained larger social security services have a lower level of economic literacy.

Belief in the Benefit of Economic Literacy: If individuals believe that economic literacy will help them in making money they will be more willing to be economically literate. Generally, adults are aware that economic literacy will help them in making profits. Hence, age and experience will affect economic literacy levels. Chen and Volpe (1998) found that individuals who are under the age of 30 and have little work experience have lower scores in their tests. Lusardi and Mitchell (2011) state that as individuals get older their scores in tests increase.

Interest in Economics: Some people may have a great interest in some research areas. Frequently, males are more likely to have an interest in issues like economics (Chen and Volpe, 1998), football, etc. This can be a reason for higher economic literacy of males. Besides, generally, males have greater working experience and schooling rates. This inequality can cause higher economic literacy in males. Probably as working experience and schooling rates increase in females, their economic literacy level will increase too. Wood and Doyle (2002), as well as Barış and Şeker (2017), reveal that males are more successful in economic literacy, while Dilek et al. (2016) found no difference in economic literacy between males and females. These differences between genders are also valid for financial literacy (Lusardi and Mitchell, 2011).

These factors and economic literacy can be modeled as in Figure 1.

Figure 1. Economic Literacy and Factors



4. Method

A survey is conducted to reveal the relationship between economic literacy with economic education, interest in economics, and belief in the benefit of economic literacy. It is determined that 384 samples are enough to represent a population of 1,000,000 (Küçük, 2016: 95). Our samples consist of 481 people in Tosya which is a town with a population of 280,908 in Turkey (tuik.gov.tr). In the first part of the questionnaire, demographic questions which include age, gender, education, marital status, and job were asked to the participants. In the second part, Likert-type (1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree) four scales (economic situation, economic education, interest in economics, and belief in the benefit of economic literacy) were used. In the last part of the survey, questions to measure economic literacy level of participants were directed. This part includes questions about microeconomics, macroeconomics, and real economics. These questions are prepared by authors.

5. Findings

Demographic results (Part A of the scale) are given in Table 1. Most of the participants are male (66.7%), married (67.6%), and graduated from secondary schools (32.4%) or faculties (29.5%). It is interesting that 34.7% of participants are not working in anywhere. It is known that participation in the labor force is low in Turkey (approximately 50-55%). People

generally prefer to work in the private sector (28.7%) rather than the public sector (19.8%). Lastly, most participants are in the age of 26-35 groups (28.7%) and 36-45 groups (29.7%).

Table 1. Demographic Properties

Gender	Frequency	%	Marital Status	Frequency	%
Male	321	66.7	Single/Divorced	156	32.4
Female	160	33.3	Married	325	67.6
Total	481	100	Total		100
	Frequency	%	Job	Frequency	%
Primary School	99	20.6	Public Sector	95	19.8
Secondary School	156	32.4	Private Sector	138	28.7
Vocational School	76	15.8	Entrepreneurship	81	16.8
Bachelor Degree	142	29.5	Not Working	167	34.7
MBA, Post-graduate, Doctorate	8	1.7	Total		100

Total		100			
AGE	**Frequency**	**%**			
18-25 Age	66	13.7			
26-35 Age	138	28.7			
36-45 Age	143	29.7			
46-55 Age	93	19.3			
56-65 Age	33	6.9			
66+ Age	8	1.7			
Total A		100			

Secondly, in Part B, questions were asked to reveal whether participants feel wealthy or not. The results of these questions are given in Table 2. It can be seen that mean values are changing 2.89 and 3.07, so, the mean of the total is 2.95. According to Küçük (2016: 239) scores between 2.33 and 3.67 can be evaluated as average. Skewness and kurtosis values are between -1 and -1.5. Morgan et al. (2004) stated that the distribution can be evaluated as normal if skewness and kurtosis values are between 0 and 1. Even more, Pallant (2001) claims that if skewness and kurtosis values are between 0 and 2, the distribution can be accepted as normal (Pallant, 2001;

Yıldırım et al., 2012). Kolmogorov- Smirnov and Shapiro Wilks tests used to check normality. Both tests revealed that they are not distributed normally. Whether economic wealth differs according to age or not was examined by Kruskal Wallis test and found no difference according to results (Sig: 0.197). Also, there is no difference according to education level (Sig: 0.266) and marital status (0.303). Nonetheless, the results of the Kruskal Wallis test shows that the wealth of entrepreneurs is better than other groups (Sig: 0.000). Thus, the difference between male and females were investigated with Mann Whitney test and found no statistically significant difference (Sig: 0.105). To test reliability, Cronbach Alpha test was utilized and found a coefficient of 0.864. According to Küçük (2016: 232), if Cronbach Alpha coefficient is between 0.80 and 1, the scale is accepted as highly reliable.

Table 2. Economic Wealth

	Mean	**Skewness**	**Kurtosis**	Kolmogorov-Smirnov	Shapiro Wilks
B1. Monthly income of my family satisfies me and my family.	2.89	0.041	-1.329	Sig: 0.000	Sig: 0.000

B2. Real estates (flats, houses, areas, etc.) which are owned by my family satisfy me and my family.	2.84	0.001	-1.129	Sig: 0.000	Sig: 0.000
B3. Assets (automobiles , gold, bonds etc.) which are owned by my family satisfy me and my family	3.07	-0.227	-1.059	Sig: 0.000	Sig: 0.000
B4. Life standard of my family satisfy me and my family	2.99	-0.157	-1.232	Sig: 0.000	Sig: 0.000
Total B	2.95	-0.042	-1.012	Sig: 0.000	Sig: 0.000

Moreover, questions were asked to find out economic education of participants with Part C of the survey. Questions

and descriptive statistics are given in Table 3. Means are smaller than 2.33, thus, it is determined that participants had not received sufficient economic education in universities or other schools. Therefore, most skewness and kurtosis values are bigger than 1 and both sig values of Kolmogorov-Smirnov and Shapiro Wilks tests are 0.000. These results indicate that the distribution is not normal. The result of the Kruskal Wallis test shows that 18-25 age and 26-35 age groups saw sufficient economy lessons (Sig: 0.000) while other groups did not. A surprising result was obtained by conducting the Kruskal Wallis test again which revealed that singles had sufficient economy lessons compared to married and divorced people. In Turkey, people should enter a central examination (KPSS) to start a job in the public sector, so, they have to study some lessons which include economics. Because of this reason, it is revealed by the help of Kruskal Wallis test (Sig: 0.000) that a person who works in the public sector had seen sufficient economy lessons according to a person who does not work. It is observed that males had sufficient economy lessons rather than females with the help of the Mann-Whitney test (Sig: 0.001). To test reliability, Cronbach Alpha test was applied. The Cronbach Alpha coefficient was found as 0.865. Again, according to Küçük (2016: 232), this score means a highly reliable scale.

Table 3. Economic Education

	Mean	**Skewness**	**Kurtosis**	Kolmogorov-Smirnov	Shapiro Wilks
C1. I have taken enough lesson to evaluate the economy	1.98	1.061	0.016	Sig: 0.000	Sig: 0.000
C2. My grades in economy lessons were high	1.76	1.467	1.010	Sig: 0.000	Sig: 0.000
C3. I participated in congresses, conferences, symposiums about economics	1.64	1.885	2.952	Sig: 0.000	Sig: 0.000
Total C	1.79	1.450	1.399	Sig: 0.000	Sig: 0.000

Questions to explore the interest of participants in the economy were asked in Part D. Questions and descriptive statistics belong to this part are given in Table 4. Means are below 2.33 except D3 questions. This shows that some

participants follow economy news on TV or radio, but they are not interested in reading economy newspapers. Though some skewness and kurtosis values are below 1, Kolmogorov-Smirnov and Shapiro Wilks test results confirm that the distribution is not normal. According to Kruskal Wallis tests, interest in economics does not differ according to age groups (Sig: 0.312). As education level increases the interest in economy increases. Participants with at least higher education have more interest in economics as Kruskal Wallis test says (Sig: 0.000). Also, the interests of singles are higher than married or divorced people (Kruskal Wallis Sig: 0.006). Males have more interest in economics rather than females (Mann-Whitney Sig: 0.027). Cronbach Alpha test was used to measure the reliability of scale and the Cronbach Alpha coefficient was found as 0.797. Küçük (2016: 232) states that if the coefficient is above 0.80, the scale is highly reliable. This score is likely to be reliable at a high level.

Table 4. Interest in Economics

	Mean	**Skewness**	**Kurtosis**	Kolmogorov-Smirnov	Shapiro Wilks
D1. I usually read books about the economy	1.99	1.125	0.408	Sig: 0.000	Sig: 0.000

D2. I usually read economy parts of newspapers or follow economy newspapers	2.25	0.618	-0.712	Sig: 0.000	Sig: 0.000
D3. I usually follow economics on TV or radio.	2.51	0.358	-1.128	Sig: 0.000	Sig: 0.000
Total D	2.25	0.729	-0.311	Sig: 0.000	Sig: 0.000

Then, in part E, questions were posed to see whether participants believe in the utility of economic information or not. These questions and descriptive statistics are presented in Table 5. Means belongs to questions in Part D are between 3.05 and 3.68. Question E1 is above 3.66, which means a high proportion of the participants thinks that people with economic knowledge evaluate their investments successfully. Scores of other questions are below 3.66 but close to it. Nearly most of the participants believe in the benefit of economic

knowledge. All skewness and kurtosis values are below 1 though sig. results of Kolmogorov-Smirnov and Shapiro Wilks tests are equal to 0.000. The distribution is not normal by considering Kolmogorov-Smirnov and Shapiro Wilks. Beliefs of participants who aged between 56 and 65 are higher than other age groups. Belief in the benefit of economic literacy does not differ according to gender (Mann Whitney, Sig: 0.148), marital status (Kruskal Wallis, Sig: 0.140), and job (Kruskal Wallis, Sig: 0.099). Participants who have higher education are more likely to believe in the benefit of economic literacy (Kruskal Wallis, Sig: 0.001). Cronbach Alpha coefficient of this scale is equal to 0.736. Küçük (2016: 232) mentions that if it is between 0.60 and 0.80, it is reliable enough.

Table 5. Belief in the Benefit of Economic Literacy

	Mean	**Skewness**	**Kurtosis**	Kolmogorov-Smirnov	Shapiro Wilks
E1. People who know about economics can evaluate their investments successfully.	3.68	-0.598	0.553	Sig: 0.000	Sig: 0.000
E2. People who know about	3.05	-0.036	0.916	Sig: 0.000	Sig: 0.000

economy earn more money					
E3. People who know economy get more success in his job.	3.41	-0.369	0.850	Sig: 0.000	Sig: 0.000
Total E	3.38	-0.249	0.656	Sig: 0.001	Sig: 0.001

A total of 12 questions were asked to investigate the economic literacy of the participants. Questions are about three groups which include microeconomics, macroeconomics, and real economics. Questions are prepared by authors. Participants generally have low scores in the test. Though questions were very easy, microeconomics scores of participants are below 50% except Question Micro 2. The lowest scores are from Micro 1 (30.4%) and Micro 3 (25.4%) questions. Scores of macroeconomics questions are between 40 and 50%. Nevertheless, scores of real economics questions are better, in which all are above 50% except Question Real 2. The best score (78%) is from Question Real 3. Total average is below 50%, which is 46.74% to be precise. Therefore, it can be said that participants fail from the economic test. There should be done something to increase economic literacy level.

Table 6. Economic Literacy Questions

	True	False	Ratio
Micro 1. What is Economics? a) Demands of government due to services provided by the government from people b) The decrease in the value of money in markets c) Investigation of how scarce sources will meet unlimited needs d) Investigation of profit and losses of firms.	146	335	30.4
Micro 2. Which branch of economics study behavior of small units such as firms, consumers, and markets? a) Macroeconomics b) Microeconomics c) International Economics d) Industrial Organization	322	159	66.9
Micro 3. Which goods are an example of rival goods? a) Gold-Oil b) Government bond-area c) Ayran-Orange juice d) Water-Pizza	121	360	25.2
Micro 4. Which one is not a production factor? a) Natural Sources b) Capital c) Labor d) Elasticity	220	261	45.7

Macro 1. What is inflation? a) Price fluctuations in the market b) Expectation level in the market c) Increase in the price level d) The policy of Central Bank	208	273	43.2
Macro 2. What is the reason for the 2008 global financial crisis? a) False policies of the Bush government b) Kyoto Protocol c) Harvey Flood d) Crisis in the USA real estate market	207	274	43
Macro 3. What is GDP? a) Taxes received in a country in one year b) Total goods and services produced in an economy in one year c) National income of a person in a country d) Total investments in a country in one year	171	310	35.6
Macro 4. If the import [of a country] is bigger than the export what is the name of this situation? a) Budget surplus b) Foreign trade deficit c) Budget deficit d) Recession	213	268	44.3
Real 1. Who is the president of the Central Bank of Turkey?	241	240	50.1

a) Süreyya Serdengeçti b) Gazi Erçel c) Murat Çetinkaya d) Mehmet Şimşek			
Real 2. What is the official name of the stock exchange market in Turkey? a) Turkish Republic Central Market b) Turkish Republic Assets Market c) Istanbul Assets Market d) Borsa İstanbul	192	289	39.9
Real 3. What is the abbreviation for the International Monetary Fund? a) IFC b) IMB c) IMF d) IBRD	375	106	78
Real 4. What is the inflation rate of Turkey for 2017? a) Approximately 1-2% b) Approximately 3-4% c) Approximately 8-10% d) Approximately 20%	282	199	58.6

Furthermore, the relationship between economic wealth (EcoWealth), economic education (EcoEduca), interest in economics (IntEco), and belief in the benefit of economic literacy (BelEco), with economic literacy scores of microeconomics (Micro), macroeconomics (Macro), and real economics (Real) is also explored by correlation analysis. Results are given in Table 7.

Table 7. Correlation Analysis Results

	Micro	Macro	Real	EcoWealth	EcoEduca	IntEco	BelEco
Micro	1	0.481** 0.000	0.506** 0.000	0.051 0.269	0.499** 0.000	0.310** 0.000	0.137** 0.000
Macro	0.481** 0.000	1	0.362** 0.000	0.135** 0.003	0.439** 0.000	0.289** 0.000	0.126** 0.006
Real	0.506** 0.000	0.362** 0.000	1	0.022 0.632	0.415** 0.000	0.334** 0.000	0.166** 0.000
EcoWealth	0.051 0.269	0.135** 0.003	0.022 0.632	1	0.165** 0.000	0.169** 0.000	0.187** 0.000
EcoEduca	0.499** 0.000	0.439** 0.000	0.415** 0.000	0.165** 0.000	1	0.555** 0.000	0.192** 0.000
IntEco	0.310** 0.000	0.289** 0.000	0.334** 0.000	0.169** 0.000	0.555** 0.000	1	0.298** 0.000
BelEco	0.137** 0.000	0.126** 0.006	0.166** 0.000	0.187** 0.000	0.192** 0.000	0.298** 0.000	1

** Correlations are significant at the 0.01 level

These results can be reached from correlation analysis.

a) Micro and EcoEduca, as well as Micro and IntEco, are positively correlated at 1% level. Consequently, the increase in economic education and interest in economics will cause an increase in economic literacy about microeconomics. The

correlation coefficient between Micro and EcoEduca is higher than other correlation coefficients (0.499). Küçük (2016: 250) mentions that if the correlation coefficient is between 0.40 and 0.60 there is a relationship between two variables. We can say that economic education helps individuals in being economically literate. The correlation coefficient between InteEco and Micro literacy is 0.310. Küçük (2016: 250) states that if these scores are between 0.20 and 0.40, it shows a weak relationship between them. As interest in the economy increases their macroeconomic literacy increases, too. But this time relationship is weaker than the relationship between economic education and microeconomic literacy. The correlation coefficient between Micro and BelEco is only 0.137, which shows that their relationship is too weak. Küçük (2016: 250) states that if the Pearson correlation coefficient is smaller than 0.20, then there exists no relationship between the two variables. Though sig value is equal to 0.000, still the relationship between belief in the benefit of economic literacy and microeconomic literacy cannot be accepted existing. This shows that even though an individual has believed in the benefit of economic literacy, it, alone, is not enough to be economically literate. The individual also should study to be economic literate by reading economic books or watching TV programs about economics or else.

b) Macro and EcoEduca, as well as Macro and IntEco, are positively correlated at 1% level. Hence, the increase in economic education and interest in economics or beliefs will cause the increase in economic literacy about macroeconomics. The correlation coefficient between Macro and EcoEduca is higher than others but still is lower than 0.50. The score of 0.439 shows a relationship between economic education and macroeconomic literacy (Küçük, 2016: 250). If individuals had education about economics, their macroeconomic literacy level will increase. The Pearson correlation coefficient is equal to 0.289, thus, there is a weak relationship between macroeconomic literacy and interest in economics (Küçük, 2016: 250). As individuals are interested in economics more, their macroeconomic literacy will increase. Also, the correlation coefficient between beliefs and macroeconomic literacy is too low (0.126). This score is below 0.20 and Küçük (2016: 250) mentions that if the correlation coefficient is below 0.20, there is no relationship between the two variables. Though sig value is smaller than 0.05, a relationship between beliefs and macroeconomic literacy is not accepted to exist due to the very low coefficient. This shows that individuals can believe the benefit of economic literacy but if they want to be economically literate they should try to learn it.

c) Real and EcoEduca, as well as Real and IntEco, are positively correlated at 1% level. Accordingly, the increase in economic education and interest in economics will cause an increase in economic literacy about actual economics. Real economic literacy and economic education have the Pearson correlation coefficient between 0.40 and 0.60 (0.415), thus, the relationship can be accepted. Individuals who had economy education have more information about actual economics. Further, interest in economics affected actual economic literacy level, too. The coefficient is above 0.20 with a score of 0.334, thus, there is a weak relationship between Real and IntEco. The interest of individuals makes them learn more about actual economics and this increase economic literacy. Although the sig value is below 0.05, it is seen that the correlation coefficient is lower than 0.20. Consequently, a relationship between them according to Küçük cannot be accepted (2016: 250).

d) It is surprising that EcoWealth is not correlated with micro- and real economics significantly. It is only correlated with macroeconomics with a sig value lower than 0.05. However, the coefficient is 0.135, and thus, a relationship between economic wealth and macroeconomic literacy is rejected by considering Küçük's standards (2016: 250). Economic wealth is not related to microeconomic, macroeconomic, and real economic literacy. It means that individuals, who are

economically literate, should do something more to earn more money. Individuals can be successful in economic life without economic literacy for being hardworking or clever, etc. In addition, we should not think the individual alone. Often, economic decisions are made with households. For example, in Turkey, if unemployment of male increased females would start to join the labor force (Talaş and Çakmak, 2013). Individuals can be wealthier also due to the effort of other family members.

Briefly, economic education and economic literacy levels are positively correlated and their correlation coefficients are between 0.40 and 0.50 (Micro: 0.499, Macro: 0.439, and Real: 0.415). This shows that if it is wanted to increase economic literacy levels, then, economics should be taught. Additionally, interest in economics and economic literacy levels are positively correlated but this time correlation coefficients are lower, approximately 0.30 (Micro: 0.310, Macro: 0.289, and Real: 0.334). Subsequently, the effects of interest in economics are smaller. As people's interest in economics increases, their economic literacy level increases as well. The correlation coefficients between belief in the benefit and economic literacy are too low (Micro: 0.137, Macro: 0.126, and Real: 0.166). Because of low correlation scores, the relationship is rejected. Beliefs are not enough to be economically literate alone. If people believe in the benefit of

economic literacy their literacy level will increase but the effect is limited.

Results of the regression models that are set up to present the relationships between Micro, Macro, EcoEduca, IntEco, and BelEco are given in Table 8.

As it is seen in Table 8, scores of Adjusted R^2 are too low. Consequently, models can explain only a small part of changes on dependent variables. Scores of R^2 values are changing from 0.126 to 0.499 while adjusted R^2 are between 0.016 and 0.247. Nevertheless, economic education, interest in economics can only explain the small ratio of changes in economic literacy, which include microeconomics, macroeconomics, and real economics. Regression models, in which belief in the benefit of economic literacy (BelEco) is the independent variable, have too low R^2 values. Hence, these regression models can only explain a very small ratio of changes in the dependent variables such as microeconomic, macroeconomic, and real economic literacy.

Table 8. Regression Models

Model	R^2, (Adjusted R^2)	Durbin Watson	Anova (F), (Sig.)	β_0, (t), (sig)	B_1, (t), (sig)
Micro=$\beta_0+\beta_1$Ecoeduca	0.499 (0.247)	1.696	158.655 (0.000)	0.634 (6.656) (0.000)	0.195 (12.596)

					(0.000)
Macro= $\beta_0+\beta_1$Ecoeduca	0.439 (0.191)	1.743	114,464 (0.000)	0.840 (9.562) (0.000)	0.153 (10.699) (0.000)
Actual= $\beta_0+\beta_1$Ecoeduca	0.415 (0.171)	1.864	99.899 (0.000)	1.468 (16.084) (0.000)	0.148 (9.995) (0.000)
Micro=$\beta_0+\beta_1$Inteco	0.310 (0.094)	1.700	50.817 (0.000)	0.876 (7.074) (0.000)	0.119 (7.129) (0.000)
Macro= $\beta_0+\beta_1$Inteco	0.289 (0.083)	1.791	43.623 (0.000)	0.992 (8.941) (0.000)	0.099 (6.605) (0.000)
Actual= $\beta_0+\beta_1$Inteco	0.334 (0.110)	1.888	60.138 (0.000)	1.472 (13.122) (0.000)	0.118 (7.755) (0.000)
Micro=$\beta_0+\beta_1$Beleco	0.137 (0.017)	1.611	9.199 (0.003)	1.108 (5.640) (0.000)	0.057 (3.033) (0.003)
Macro= $\beta_0+\beta_1$Beleco	0.126 (0.016)	1.697	7.668 (0.006)	1.194 (6.819) (0.000)	0.046 (2.769) (0.006)

Actual= $\beta_0+\beta_1$Beleco	0.166 (0.028)	1.791	13.654 (0.000)	1.630 (9.122) (0.000)	0.063 (3.695) (0.000)

6. Discussion and Conclusion

Economic literacy is an important issue because it is thought to help people for making more effective decisions. Therefore, economic targets can be reached easily. This research aimed to investigate whether economic education, interest in the economy, and belief in the benefit of economic literacy impact economic literacy or not. The second aim was to search if economic literacy affects the economic wealth of people or not. Research is realized with the help of a survey conducted on 481 persons. Results showed that economic education and interests in economy help increasing economic literacy. Yet, dependent variables (economic education and interest in the economy) explains the small ratio of changes in economic literacy. In further studies, other factors that might be effective in economic literacy can be studied. Another interesting result is that the relationship between economic literacy and economic wealth is not statistically significant. In other words, knowing economy is not enough to be successful in economic life. Individuals who are not aware of economics can earn more money by studying or managing their investments effectively. Many rich people who are not familiar with economics in society is an example of this. This result should

be investigated more in further studies because generally it is accepted that people who know the economy well should be more successful in economic life and manage their investments effectively. In the future, it is hoped that the relationship between economic literacy and wealth could be revealed successfully. Besides, believing the importance of economic literacy is not enough to be economically literate. Individuals can believe that economic literacy is important for being successful in economic life, but if they do not read, try, or study, eventually, they will not be economically literate.

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