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Testing the Influence of College Education on the Financial Literacy Level of University Students in Turkey

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Abstract

This research investigates whether the undergraduate education experience in Turkey affects financial literacy (FL) levels of university students. A survey study was carried out in Suleyman Demirel University (Isparta, Turkey). Students from 7 departments under the fields of natural and applied sciences, social sciences, and health sciences were included in the study, and the participants of which were composed of first-year and senior students. The results indicate that the FL levels of the senior students are significantly higher than those of the first-year students. In addition, senior students higher FL level is also verified by the analyses performed separately for each of the fields of science. It has been determined that this difference might be affected by factors such as getting to know the concept of FL, having an investment, intensity of reading, thinking, and talking about finance, attending a financial course, employment status and having an independent income. Students who undertook a specifically FL-based course showed higher levels of FL knowledge.

Key words*: Financial literacy; financial literacy education; college education.*

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Introduction

Financial literacy (FL) has been a popular subject for approximately 25 years and can be described as the use of financial knowledge and skills in real life situations (Lusardi, Mitchell, & Curto, 2010). The growth in its popularity has led to FL being studied in various fields including education. Financial literacy can be defined as having the knowledge and skills to make informed financial decisions (Lusardi & Mitchell, 2011). The Organization for Economic Cooperation and Development (OECD, 2016) states that people are financially literate if they are motivated and self-confident in their financial decisions. Financial literacy is an issue that concerns everyone, from children planning how to spend their pocket money to the elderly coping with budgeting in retirement (Lusardi & Mitchell, 2014). Major expenditures such as on education, marriage, property purchase, serious illness, accidents or disasters and retirement are all important real life issues with a financial dimension. Financial decisions have the potential to positively or negatively affect individuals and their families. From this perspective, individuals should be educated to achieve competence in financial literacy (OECD, 2016). Accordingly, many developed and developing countries have introduced financial literacy education initiatives. Research into financial literacy in the international arena indicates that those countries who provide financial literacy education demonstrate superiority (Klapper, Lusardi, & van Oudheusden, 2014).

The aim of this study is to examine whether the FL levels of undergraduate students change during their time at college. Many students leave their homes to attend a college which is generally in another city. Hence, the students who used to live dependently, enter a new stage in their lives to their independency. Besides, whether their universities are in their cities or not, their perceptions of responsibility are gradually changing through college education. There are some factors that can affect their FL level during college period. These factors can be listed as employment situation, the change in the investment status, attending a specific FL course, meeting with the concept of financial literacy informally outside of the courses, financial dependency level, students' shifting interests toward more reading, talking and thinking on financial issues, the change in the social environment, and the closeness of the students' majors to the financial literacy concept. In light of these factors, this study investigates the FL levels of first-year and senior college students to shed light on whether completing a college education generally improves the FL level and which factors through college education contribute more to a higher FL level. In this context, the dimensions of the concept of financial literacy and the importance of financial literacy education were presented in the rest of the introduction.

The dimensions of financial literacy can be categorized as knowledge, skills and affecting factors (Schuchardt et al., 2009; Huston, 2010; Ozkale, 2018). '*Knowledge',* is a conceptual infrastructure on which the skills of financial literacy are built. It is expected that people should understand basic financial concepts such as interest rate, investment, stock market, credit, risk-reward relationship, global financial developments, some basic knowledge of financial institutions, and the basic financial processes of daily life like foreign exchange conversions, banking transactions and trading procedures (Ontario Ministry of Education, 2010; Ozkale, 2018). This information is dynamic because of the ever-changing and developing structure of the financial world. However, financial events cannot be expressed only by economic realities. Financial changes are also influenced by political and other global matters or technological developments. For this reason, individuals need to evaluate the financial processes alongside the various current developments. From this perspective, it can be said that financial information is related to the different dimensions of life and involves a wide range of issues (Shim et al., 2010).

'Financial skills' should be converted to financial behaviours (OECD, 2005). The four key behaviours in the area of finance are: earning, spending, savings and investment,

and people need to know how to perform proper financial management and planning skill in each area (Lusardi & Mitchell, 2014; Ozkale, 2018). Financial management and planning can be considered an upper level skill and includes financial access, financial security, financial guarantees for expected and unexpected situations and budgeting for monthly, annual or specific periods (Lusardi & Mitchell, 2011; Ozkale, 2018). Providing financial access prevents illegal financial operations and allows individuals to increase their financial scores and to track their financial processes. Financial security is important for the protection of personal information and assets. Financial guarantees can protect individuals from adverse situations in cases of accidents or retirement. In addition, the creation of a budget, being able to follow it within a timescale and adhere to it, the process of updating the budget according to assets or restricted processes are all considered to be basic tasks of financial management and planning (Shim et al., 2010). In addition, financial literacy requires basic numeracy skills (Lusardi, 2012). Simple transactional calculations, comparing products, reading data, selecting optimum preferences and understanding the effect of different variables on getting loans require a basic level of mathematical knowledge and skill. The OECD (2016) considers mathematical literacy to be a prerequisite for FL. Financial literacy involves an effort to understand a financial situation based on financial information and facts. In financial processes, this understanding is characterized by basic skills such as numeracy, financial management and planning, as well as the intention of the individuals. Financial literacy requires that individuals should be able to achieve and keep their financial independence, be aware of their financial responsibilities and get proper advice. People should also be able to understand how their financial decisions affect them as well as their families (Xiao et al., 2014).

Although individuals intend to use their financial knowledge and skills when making their financial decisions, they are also influenced by their environment and emotions, which are known as *'Affecting Factors'*. For example, a person who wants to buy a car can make an emotional decision about its color instead of an optimal choice, or a person who has not eaten for a long time can buy more products than necessary due to hunger. Also, it is interesting that individuals think they are more knowledgeable than they are (Klapper, Lusardi, & van Oudheusden, 2014; Xiao et al., 2014). This leads to a negative effect on their financial decisions, limits their financial developments and causes to an unwillingness to take the correct advice.

Individuals' financial decisions are also affected by their social environment (Tisdell, 2000). For instance, individuals tend to imitate the behaviour of their families when making financial decisions (Lusardi, Mitchell, & Curto, 2010; Shim et al, 2010). It is also expected that individuals who do not have any financial freedom make their financial decisions according to suggestions from their families. Therefore, the family is an important environmental factor affecting the decisions of the individual. This is especially expected for Turkish college students. Although there is no tuition fee in Turkish public universities, and one out of every ten students gets a scholarship and is given accommodation by the government, along with all students can borrow money from the government in the form of a learning loan (Turkish Youth and Sports Ministry, 2018; Turkish Council of Higher Education, 2018), the students' financial dependency to their families are even higher than the government (Ekinci, 2009). Furthermore, employment rate of Turkish college students is 33% (Turkish Statistical Institution, 2018), which is below the rate of 50% in Finland and 80% in the US (Kena et al, 2016; StatisticFinland, 2018). Hence, Turkish students are generally not generating their own funds. Another affecting factor in this area is friends. Individuals discuss financial issues with their friends, and they sometimes make financial decisions together, but this advice can be misleading. Besides, the media also affects individuals' decision making (Schuchardt et al., 2009). It has the power to influence financial decisions, especially through the use of advertisements that focus on consumption and refer only to the positive aspects of products. Hence an individual cannot be expected to be completely closed off from suggestions from family, friends or the media. An individual can make

accurate financial decisions by weighing up all the suggestions and being aware of their own financial responsibilities as part of their financial qualifications.

Financial literacy has become increasingly important as a 21st-century skill and is on the educational agendas in many countries (OECD, 2016). To encourage the growth of financial literacy, countries are introducing various activities. The first is holding conferences and short-term seminars aimed at increasing public awareness. These meetings are important as they are often the first time that individuals have met to discuss the concept of FL. The second is schooling in the subject of financial literacy. Today, FL courses are part of the formal education of pupils in many countries such as Canada, the United States, the United Kingdom, Singapore, Brazil, South Africa, Estonia, Ireland, Netherlands and so on. Besides, in some countries financial literacy is integrated into other related courses such as mathematics and social sciences (California Department of Education, 2015; Ontario Ministry of Education, 2010; Worthington, 2004). Although financial literacy education is of concern to people of all ages, it is of greater interest to adults and individuals who are economically separated from their families (Tisdell, Taylor, & Forté, 2013). For this reason, secondary school and college education should be given priority in financial literacy education before the students are fully independent from their families.

The OECD has played a leading role in promoting financial literacy education alongside the work of The International Network on Financial Education (INFE) who promote international cooperation in this field. Financial literacy has been included in the Programme for International Student Assessment (PISA) since 2012. In this context, the status of financial literacy in the education of countries is evaluated through the international researches pioneered by the OECD, and the economic and sociological dimensions of the countries and financial literacy status are examined together (OECD, 2017a). Turkey is a founding member of the OECD, but the financial literacy section of the PISA has not yet been implemented in Turkey despite regular participation in other sections. Therefore, it is not possible to make comparisons between Turkey and other countries at PISA level.

The rest of the study continues as follows: Next section presents the literature review, the following section introduces the data and methodology, the latter section demonstrates the empirical findings and the last section discusses the findings and concludes the study.

Literature Review

Financial literacy has a wide range of literature including studies of conceptual discussions, specific skills and FL level of adults, secondary school students, college students, working people, individual investors, entrepreneurs, military members and etc. Because this study focuses on the FL levels of college students in Turkey, related previous national studies and also international research in which Turkey participated were presented.

A worldwide study conducted by Klapper, Lusardi, and van Oudheusden (2014) examined the FL levels of adults from 144 countries. They found that Northern European countries led in financial literacy within European Union. In Denmark, Netherlands, Germany and Sweden, at least 65% of the adults were financially literate. Canada, United Kingdom and United States were also reported that at least 60% of their adults are financially literate. However, in that research, Turkey was ranked at 120 with a rate of 24%. In other similar research among the G20 countries, it was detected that the overall financial knowledge, attitudes, and behaviour score of Turkish adult people was below the G20 average, and also a considerable difference in favor of Turkish men's financial knowledge was determined (OECD, 2017b). Likewise, Bhutoria, Jerrim, and Vignoles (2018), another international study that included Turkey, found that men were

more financially literate than women. Also, they identified that Turkey was one of the six worst performing countries among 31 examined countries. Similarly, Financial Literacy and Inclusion Association (2017), a Turkish based foundation renowned in Turkey, revealed that 70% of people had minimum level of financial knowledge, and it was clarified that only 40% of participants succeeded to save money within last one year. Nonetheless, the above studies do not specifically focus on college students. There are also some studies which have examined the FL level of college students in Turkey.

The first null-hypothesis seeks to test the expectation that senior students are likely to have higher FL levels than first year students. By considering the difference in the level of knowledge regarding FL concepts, the effect of attending a financial course, the difference in having investments, the effect of financial independency and employment status and the effect of spending leisure time on reading, thinking and talking on finance, we shed light on if, or how, these factors contribute to the higher FL level of senior students.

H_{01}: *FL level of senior students will not be significantly different to that of first-year students.*

However, there is a gap in Turkish literature addressing these issues. As of our knowledge, only a few studies addressed them in a limited scope. Sarıgül (2014) found that senior college students in Konya universities were significantly more financially literate than freshmen, sophomores and juniors. On the other hand, surprisingly, Ergün, Şahin, and Ergin (2014) revealed that there was not any significant difference in FL levels of first, second, third and fourth year students of Faculty of Economics and Administrative Sciences of Osmaniye Korkut Ata University. Tuna and Ulu (2016) showed that average FL level of senior students in Business College of Sakarya University were significantly higher than first-year students. Contuk (2018) demonstrated that senior students in Business Administration Department of Faculty of Economics and Administrative Sciences of Mugla Sitki Kocman University had somewhat higher FL knowledge than first-year students. She noted that the knowledge for some financial topics like the relation between interest rates and bond prices were identical for both senior and first-year students. Given this finding the following null-hypothesis is developed.

H_{02}: *FL levels of the senior students studying in the field of social sciences (including Business College) will not be significantly different from those of the senior students studying in Natural and Applied Sciences and Health Sciences.*

Some studies in Turkish FL literature reported that even Business College students' FL levels are inadequate. Ergün, Şahin, and Ergin (2014) investigated the FL level of Department of Business Administration's students of the Faculty of Economics and Administrative Sciences of Osmaniye Korkut Ata University. They determined that although the students were basically financially literate, they did not possess advance FL knowledge. Alkaya and Yağlı (2017) examined the financial knowledge, attitude and behaviour of the students of Nevsehir Haci Bektas Veli University. They only included the students of the Faculty of Economics and Administrative Sciences in their research and did not focus on a particular class. It was detected that %61 of students did not possess fundamental financial knowledge. Antepli and Kılınç (2018) identified the FL level of Business College students of Selcuk University. They demonstrated that at least 10% of the students have never heard some important financial terms like equity, investment fund, bank deposit, and dividend.

On the other hand, some studies concluded that students from social sciences have higher FL levels than other field of sciences. Sarıgül (2014) determined that students from social sciences were more financially literate than the students from

health, education and natural sciences. By comparing the FL levels of students from the Faculty of Economics and Administrative Sciences and the Faculty of Engineering, Er et al. (2014) found that FL level of students from social sciences were significantly higher than the students from natural and applied sciences. Özdemir et al. (2015) investigated the FL level of the students of the Faculty of Economics and Administrative Sciences of Anadolu University. They adapted OECD FL survey and found that only %6.8 of the students took place in the category of low FL level. This high level was attributed to the faculty's educational content, which supports FL knowledge. Similarly, Kılıç, Ata, and Seyrek (2015) conducted a more comprehensive study by including students from 12 faculties of Gaziantep University. They found that the overall FL level of students is 48%. They revealed that the students from the Faculty of Economics and Administrative Sciences had the highest FL levels among 12 faculties. Biçer and Altan (2016) revealed that financial interest and attitude scores of Department of Health Administration's students were higher than the students of Department of Midwifery and Department of Nursing. They explained this difference by the educational content of Health Administration Department, which includes some accounting and finance courses in its programme.

The third null-hypothesis seeks to examine any possible gender difference. Sarıgül (2014), Kılıç, Ata, and Seyrek (2015), Tuna and Ulu (2016), and Alkaya and Yağlı (2017) found that male college students' FL knowledge was higher than female students in Turkey.

H_{03}: FL level of male students will not be significantly different from female students.

The fourth and last null-hypothesis is about the effect of a specific FL course on the FL level of college students. Many universities offer general elective FL courses to enhance their students' financial knowledge, skills and attitudes. However, to our knowledge, there haven't been any study investigated this hypothesis regarding Turkish college students.

H_{04}: FL level of students participating in a specific FL course will not be significantly different from other first-year and senior students.

Data and Methodology

This study examines the effects of undergraduate education on FL levels. To this end, a survey study was carried out with students from Suleyman Demirel University in Isparta, Turkey. Only the first-year undergraduate students and senior students who are about to finish their undergraduate education were included in the study. Students from the fields of natural and applied sciences, social sciences, and health sciences were contacted since a college-wide study was aimed. 593 students from 7 departments in total participated in the study. Table 1 shows descriptive information about the survey participants.

Table 1:
Descriptive Information About Survey Participants

Discipline	Department	Gender			Class			TOTAL
		Men	Women	Total	First-year Students	Senior Students	Total	
Social Sciences	Public Finance	35	53	88	50	38	88	262
	Business Administration	34	54	88	46	42	88	
	Law	14	72	86	50	36	86	
Health Sciences	Physical Therapy and Rehabilitation	49	83	132	69	62	131	132
Natural and Applied Sciences	Chemical Engineering	15	35	50	36	13	49	199
	Landscape Architecture	19	30	49	26	23	49	
	Forestry Engineering	65	35	100	36	65	101	
TOTAL		231	362	593	313	279	592	593

The survey was created by the authors of the study and is composed of four sections. In the first section, demographical information such as the department, class, and gender can be found. The second section is spared for personal financial information, obtained from questions about work-life information, planning behaviour, whether the person has an investment of their own, whether their income is independent, whether they are involved in a financial course, whether they have come to know the concept of FL, and what kind of investment tools they would prefer if they had $80,000. The third section comprises of a financial information test, in which there are 15 questions. The answers to these questions were evaluated over a 100-point scale. The questions are composed of 6 categories; namely income generation, buying goods and services, saving, investment, loan use, and protecting and insurance. This categorization has been adopted within the National Standards for Financial Literacy, introduced by the Council for Economic Education (2018). The fourth section of the study is comprised of statements regarding financial behaviour, such as "I like to read, think and talk about finance", or "I am of the opinion that financial issues dominate my life". The answers to the statements were evaluated on a 5-Likert scale, with 1 meaning "Strongly Agree", 2 meaning "Agree", 3 meaning "undecided", 4 meaning "disagree" and 5 meaning "strongly disagree".

In comparing two independent groups within the context of relevant variables in the study, Mann-Whitney U (Mann & Whitney, 1947), a nonparametric test, was used. This test was applied while determining the differences between the FL levels of the first-year and the senior students; the separate FL levels of the first-year and the senior students from the fields of natural and applied sciences, social sciences and health sciences; the answers given by the first-year and the senior students to the statement "I am of the opinion that financial issues dominate my life"; the FL levels of the male and female senior students; and the answers given by the first-year and the senior students to the statement "I like to read, think and talk about finance".

Kruskal-Wallis H (Kruskal & Wallis, 1952), another nonparametric test, was used to compare more than two independent groups within the context of relevant variables. This test was applied while determining the difference of FL levels between the senior students from the fields of natural and applied sciences, social sciences, and health sciences, and whether being involved in a specifically FL-based course makes any difference in students' FL level.

Pearson chi-square test was used to determine the relationship between two variables. This test was applied to determine the relationships between getting to know about the concept of FL and the class the student is involved in; being involved in a financial course at secondary school or college and the class the student is involved in; having an investment and the class the student is involved in; having an independent source of income and the class the student is involved in; work status and the class the student is involved in; and planning behaviours and the class the student is involved in.

Results

H_{01}: *FL level of senior students will not be significantly different to that of first-year students.*

The null-hypothesis (H_{01}) was tested using the Mann-Whitney U test, the results are presented in Table 2. Since the difference was significantly different (1% significance level), the null hypothesis is rejected. The findings are that the senior students did have a significantly higher FL level than the first-year students.

Table 2:
Mann-Whitney Test Results of FL Levels of First-Year and Senior Students

	N	**Mean-rank**	**Mann Whitney *U***	***P***
First-year students	313	254.78	30604.500	0.000
Senior students	274	338.80		

Note: * denotes significance at 1% level.

The null-hypotheses (H_{01}) was further tested for the different disciplines and the results of this are presented in Table 3. The comparison against all were found to be significantly different and therefore, this null-hypothesis is rejected in regards to the different disciplines. In other words, the FL levels of the senior students from each discipline are different from those of the first-year students. Mean rank values indicate that the senior students from each discipline have higher FL levels than the first-year students.

Table 3:
Mann-Whitney Test Results of FL Levels of First-Year and Senior Students for Each Discipline

		N	**Mean-rank**	**Mann Whitney *U***	***P***
Natural and Applied Sciences	First-year students	98	80.71	3059.000	0.000*
	Senior students	101	118.71		
Health Sciences	First-year students	69	56.67	1495.000	0.003*
	Senior students	62	76.39		
Social Sciences	First-year students	146	114.82	6032.500	0.000*
	Senior students	111	147.65		

Note: * denotes significance at 1% level.

Seeking further confirmation of the findings so far analysis was made of the responses to the question "*I am of the opinion that financial issues dominate my life*". The difference levels between the answers given by the senior students and the first-year students were analyzed by performing a Mann-Whitney U test. The results presented in Table 4, show a significant difference (5% significance level) did exist. From the analysis of mean rank values, the senior-level students have a lower value; i.e., their answers to the statement are more inclined towards "Agree". Therefore, this indicates that the senior students appear to have adopted the perception that financial issues dominate their lives more intensely than the perception of the first-year students. This perception is supportive of the results which indicate that the FL levels of the senior students are higher.

Table 4:

How Does the Financial Issues Dominate the First-Year and Senior Students' Life?

	N	**Mean-rank**	**Mann Whitney *U***	***P***
First-year students	304	302.98	37247.500	0.025*
Senior students	273	273.44		

Note: * denotes significance at 5% level.

H_{02}: *FL levels of the senior students studying in the field of social sciences (including Business College) will not be significantly different from those of the senior students studying in Natural and Applied Sciences and Health Sciences.*

The null-hypothesis (H_{02}) was tested using the Kruskal-Wallis H, the results are presented in Table 5. The results presented in Table 5 show that there was no significant difference (P value 0f 0.119) and therefore the null-hypothesis (H_{02}) is accepted because there is significant difference. This indicates that senior level students are very similar since there is no significant difference between the FL levels of the senior students from each discipline.

Table 5:

Kruskal Wallis Test Results of FL Levels of Senior Students from Different Disciplines

	N	**Mean-rank**	**Kruskal Wallis *H***	***P***
Natural and Applied Sciences	101	125.64	4.252	0.119
Health Sciences	62	138.04		
Social Sciences	111	147.99		

H_{03}: FL level of male students will not be significantly different from female students.

The null-hypothesis (H_{03}) was tested using the Mann-Whitney U test, the results are presented in Table 6. Since the difference senior male and female students was significantly different (1% significance level), the null hypothesis is rejected. The findings are that the that the FL levels of the senior male students was significantly higher than those of the senior female students.

Table 6:
Mann Whitney Test Results of FL Levels of Senior Male and Female Students

	N	**Mean-rank**	**Mann Whitney *U***	***P***
Men	127	157.02	6728.500	0.000*
Women	146	119.59		

Note: * denotes significance at 1% level.

H_{04}: FL level of students participating in a specific FL course will not be significantly different from other first-year and senior students.

The distribution of the responses to the question concerning whether the students had prior knowledge of the concept of FL or not is presented in Table 7, Panel A. The relationship between having prior knowledge about FL and the class the student was involved was examined using a chi-square test the pearson value was 22.362, with the resulting p-value of 0.000 (Table 7, Panel B) indicating a significant difference. Thus, the null hypothesis is rejected. Within this framework, there appears to be a relationship between having heard about the concept of FL and the class the student is involved in. The number of people who had heard this concept was higher among the senior students. In this regard, the frequency of knowing the concept of FL increases as students' progress towards completing their undergraduate education, which in effect contributes to the increase in the FL levels of the senior students.

Table 7:
The Effect of Knowing FL Concept on FL Levels of First-Year and Senior Students

Panel A

	First-year students	Senior students	Total
Students who know FL concept	66	108	174
Students who do NOT know FL concept	247	170	417
Total	313	278	591

Panel B

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.362	1	0.000

Another factor that can explain the higher FL levels of the senior students is whether the students have been involved in a financial course. The question "*Have you been involved in a financial course during secondary school or college education?"* was asked. The distribution of the responses to this question are presented in Table 8, Panel A with 62% of the senior students having been involved in such a course, compared to only 43% of the first-year students. The relationship between being involved in such a course and the class the student is currently involved in has been analyzed through pearson chi-square test. In this context, the value of pearson chi-square test statistics is 20.731, while the p-value of the test statistics is 0.000 (Table 8, Panel B). Therefore, the null-hypothesis, the prospect of being involved in a financial course is independent of the class the student is involved in, is rejected at 1% significance level. Therefore, the fact that the students have been involved in such courses more intensely throughout their educational life can be said to have contributed to have contributed to their increased knowledge in regards to FL levels.

Table 8:
The Effect of Attending a Financial Course on FL Levels of First-Year and Senior Students

Panel A

	Students took FL course	Students didn't take FL course	Total
First-year students	124	182	306
Senior students	164	112	276
Total	288	294	582

Panel B

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	20.731	1	0.000

Conclusion

The findings indicate that the FL levels of senior students are higher than those of first-year students. It indicates that a college experience has a positive effect on individuals' FL levels regardless of the department in which they undertake their study. Senior students think that their financial decisions give their lives more direction which highlights how their college experience is formed by their financial knowledge, skills and behaviour contributing to their FL levels. Senior students are more familiar with the concept of FL than first-year students. Also, the rate of senior students who took a financial literacy course is higher than first-year students. This can reinforce their financial knowledge and skills and increase their FL levels.

When considering the departments in which the students study, it was found that senior students in social sciences get better scores than those in other disciplines. This may be because the knowledge and skills learned in social sciences has more of a financial element. Furthermore, taking a specific FL course in college had a significant positive effect on the FL level. While the average test score for students who took a course in financial literacy was 69, the average score for the senior students and first-year students were 57 and 47, respectively.

There are similarities and differences in the research findings between this study and those in the literature. The results of this study were similar to, Sarıgül (2014) and Tuna and Ulu (2016) in that senior students were more financially literate than first year students. Regarding the effect of the field of study on FL levels, in parallel to our findings, some studies reported that students from social sciences (including Business College) were more financially literate than the other field of sciences such as education, health, and natural and applied sciences (Sarıgül, 2014; Er et al., 2014; Kılıç, Ata, & Seyrek, 2015; Biçer & Altan, 2016). Regarding students' overall FL level, our finding (51%) was very similar to the finding (48%) of Kılıç, Ata, and Seyrek (2015), and interestingly, both studies included many faculties in the research. By contrast, other research carried out on the general public of Turkey found this to be lower (24%) (Klapper, Lusardi, & van Oudheusden, 2014; Financial Literacy and Inclusion Association, 2017; OECD, 2017b). The indications are that a college education generally leads to a higher FL level than the level held by the general public. On gender difference, male students' FL levels were significantly higher than the female students' which is consistent with a number of previous studies (Sarıgül, 2014; Kılıç, Ata, & Seyrek, 2015; Tuna & Ulu, 2016; Alkaya & Yağlı, 2017). This was also found in some international studies (Klapper, Lusardi, & van Oudheusden, 2014; OECD, 2017b). In any case these results require careful consideration and future research could explore the possible underlying causes of these issues.

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