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| Araştırma Makalesi / Research Article |

## Üniversite Öğrencilerinin Okuma Materyali Seçimi ve Bunların Ana Dil ve Yabancı Dil Kavrama Seviyeleri <sup>1</sup>

### Students' Reading Material Choices and Their L1 and FL Comprehension Levels

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#### Anahtar Kelimeler

kavrama  
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#### Öz

Okuma kavramı çağlar boyu değişimler göstererek ekran okuma olarak adlandırılan yeni bir şekle büründü. Korelasyon tasarımı ile desteklenmiş bu inceleme tasarımı araştırma, okumanın ve bu yeni tür okuma şeklinin önemini dikkate alarak, öğrencilerin genel, ana dil ve yabancı dil okuma materyali seçimlerini ve basılı ya da elektronik materyaller okuyan öğrencilerin ana dil ve yabancı dil kavrama seviyelerini bulmaya ve karşılaştırmaya çalışmıştır. Bilgi toplamak amacı ile bir anket ve kavrama testi uygulanmıştır. Araştırma sonuçları öğrencilerin basılı materyallere göre elektronik materyalleri daha çok okuduklarını göstermiştir. Özellikle, sosyal ağlar ve internet sayfalarının (internet günlüklerinin) yüksek bir okunma oranı olduğu ve farklı türde materyaller okuyan öğrenciler arasında kavrama farkı olmadığı gözlemlenmiştir. Öğrencilerin elektronik materyalleri daha çok okudukları ve bu tür materyalleri okuyan öğrencilerde kavrama düşüklüğü gözlemlenmediği dikkate alındığında, bu tür materyallerin sınıflarda ders kaynağı olarak kullanımının dil eğitiminde öğrenci motivasyonunu artırarak başarıyı destekleyeceği ve, bu yüzden, özellikle yabancı dil öğretmenlerinin özgün elektronik materyalleri derslerinde kullanmalarının yararlı olacağı düşünülmektedir.

#### Abstract

Reading has changed its shape throughout history and turned into a new shape named as screen reading. By considering the value of reading and its new shape, this survey design study which was supported with the correlational design was used to find students' general, L1 and FL reading choices and L1 and FL comprehension levels of the students who read printed or electronic sources. A questionnaire and a comprehension test were used to collect data. Results showed that students choose to read electronic materials more than printed ones. Especially, social sites and internet blogs have a high reading amount in both languages and there are no comprehension differences among students who read different kinds of materials. Considering that students read electronic materials more than printed ones and there is not a comprehension deficiency among the students who read those kinds of materials, it is thought that using these kinds of sources in the class-room as course materials will support the success by increasing the motivation and, so, it will be beneficial especially for foreign language teachers to use authentic electronic materials in their courses..

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## INTRODUCTION

Language education process has four main skills as reading which is used for knowledge gain, personal empowerment, occupational effectiveness, and increasing the sense of enjoyment according to Sadoski (2004), listening, speaking, and writing. It is true that listening or watching, which require audio-visual elements, are also used for input, but reading is the primary tool for this aim and it is also used in the ELT to develop students' language levels since it is more economical and easy to use. Grabe and Stoller (2011) believe the invention of the printing as the most essential invention throughout the history because they feel that the gadget increased the reading amount and by this way, people shared their knowledge.

Because of being a complicated concept that includes various dependent and independent variables such as the physical situation of the reader, society, and material, it is a challenging process to define reading successfully. However; researchers tried to express various definitions of reading in which they expressed diverse sides of the concept. For example; Bernhardt (2010) describes reading as "understanding, using and reflecting on written texts, to achieve one's goals, to develop one's knowledge and potential and participate in society" (p.16). In this definition, reading is expressed as an activity which has an aim but people sometimes read without an aim such as reading a magazine they found while waiting for their turns for a doctor appointment? Büyükyazı's (2007) definition which is "apprehending the meaning to understand what is written more than simply decode symbols (letters)" (p.1) can be used to solve this problem. This definition does not direct reading to a definite goal but expresses its process. Reading is a process, and its output is understanding what is read. Demiröz (2008) expresses that reading deals with printed or electronic language messages and includes social, cognitive, and psycholinguistic levels. To understand a message, just letters or symbols are not sufficient because cognitive processes should be supported with social and psychological elements.

Berthardt (1998) touches the social side of reading by expressing two various descriptions as the social and cognitive definitions of reading. In the cognitive definition, reading is seen as an intrapersonal problem solving, which includes the understanding of the symbols and coherently combining them. Brain is the main element used to understand the meaning in this process. In the social definition, brain is seen as a tool to establish and continue social relationships and reading is used instead of speaking and listening.

Reading includes thinking, problem-solving, reasoning, analysing, discriminating, judging, evaluating, synthesizing, critical thinking, and effective expression (Jenkinsen, 1973; Pugh, Pawan, and Antommarchi, 2000). Because of this reason, reading can not only be explained as a code deciphering process. A reader should discriminate the sentence structures, analyze them to find the meaning differences of the sentences which have the same surface structures, evaluate the gathered information, and use the problem-solving abilities to understand a passage if s/he has any barrier. Reading is a comprehensive concept, and the process mentioned above includes not only background knowledge but also text schemata, lexical and grammatical awareness, and L1 knowledge for FL learners (Singhal, 2006). Without sufficient vocabulary capacity and grammar knowledge, it is tough to understand a passage. A reader should be able to relate sentences and use his/her language and background knowledge coherently to gather the right meaning. FL learners can also use their L1 knowledge when needed, and this requires to have a sufficient amount of L1 ability.

Alderson (2000), Broughton, Brumfit, Flavell, Hill, and Picas (2003) and Grabe and Stoller (2011) divide the reading process into two stages. The first stage is decoding and it is also known as a lower-level process. In this process, the reader tries to solve a problem which means to recognize and connect the symbols, letters, or dots in a meaningful way. The second stage is called comprehension, namely higher-level process in which the reader should be able to gather the correct meaning which can be explicitly expressed or hidden inside deep structures of the sentences. Hill (2009) also supports these two processes of reading, but, according to the researcher, understanding and decoding are the same processes, and the second process is developing fluency.

When the reading and its processes were examined, it is understood that L1 reading ability has effects on FL reading despite the differences of those languages. A good L1 reader is supposed to have better results in FL reading tests. The study of Pichette, Segalowitz, and Connors (2003) which was carried out with the help of 52 Bosnians in a longitudinal design supports this idea by mentioning the effects of L1 reading ability on FL reading comprehension. Schachter (1994) who mentions the impact of previous knowledge (which includes L1 reading ability) on FL reading and Alderson (2000) who explains this with the transfer process also approve the same idea. Using L1 reading strategies when coming across with a barrier in FL is another way of this process.

Baron (2009) expressed that "Digital writing is quickly replacing the older ways, just as print replaced script" (p.11). Because with the technological developments and the Internet, which was especially started to be used by academicians and government in 1991 (Gunderson, 2009), user amounts of electronic materials began to increase. This situation created a new term as screen reading, and it was defined by Güneş (2016) as reading from computer, TV, iPad, or smartphone screens. The excessive use of social sites and electronic communication methods picked up the number of screen readers. To support this, Alsanie (2015) explains the effect of social media use and technological communication methods by expressing that 93% of the students communicate with their families via WhatsApp. This reading tendency change can also be applied in ELT to benefit from its positive sides such as easiness to use, financial ad-vantages and environmental benefits.

According to Michael Dirda, e-books are motel rooms that are monotonous but useful. Print books are real homes which people can own, the things that people can put the self and take out from there (cited in Baron, 2015). This emotional expression just explains the beliefs about the joy of owning a book, touching it, and being able to smell it; nevertheless, as mentioned on the

previous paragraphs, there is an increasing amount of electronic material using tendency in the 21st century especially with the success of the Internet whose journey mainly started in 1991. Although it is highly used, there are studies which are against screen reading in addition to supporting ones.

Robertson (2006) and Spencer (2006) are the researchers that found the tendency of choosing printed sources, not electronic ones. Robertson (2006), who studied with 101 students, concluded that 'some students find reading from the screens difficult as they are not able to underline the critical points in the passage'. However, new technological developments have already solved these problems as it is possible to mark any point or make comments about a part of the passage by using Acrobat Reader or Word Software. Two hundred fifty-four learners who joined Spencer's (2006) study choose to read printed versions of the course notes, readings, schedules, and assignments that this research also supports the use of printed sources.

There are also studies about the effectiveness of the printed source reading when compared with reading electronic sources. Baron (2015) and Tuncer and Bahadır (2014) both found the success of printed material users in their studies. Students in Baron's study think that reading electronic sources makes it challenging to construct mental gaps as the reader is not able to see the whole passage. Seventy-eight students in Tuncer and Bahadır's experimental study completed pre-tests and post-tests. Results of this study showed the success of printed material readers rather than electronic material reading students. Mangen, Walgermo, and Bronnack (2013) also supported the success of the individuals that read printed sources. Seventy-two tenth grade Norwegian students were used to understanding the comprehension levels of the students who read printed or pdf versions of the same materials and students who used printed sources outperformed the other group. Aydemir and Öztürk (2012) examined the subject from a different perspective and tried to understand the motivation factor in print or screen reading. The study was carried out with 60 fifth grade students by applying them three narratives and three expository texts. Results showed that students who read electronic sources lose their motivation more quickly when compared with students who read printed materials. Studies support the bene-fits of printed sources and students' desire to choose them, but there are also other studies that mention the contrary ideas.

Baron (2015) supports that people started reading electronic materials with emails and webpages, and then turned their attention to electronic books and articles. Now, there are a massive amount of electronic sources, and screen reading is heavily used. For example; 94% of the students in the USA used electronic sources for carrying out research or completing their school projects in 2001 (Irwin, 2007). Using electronic sources has many benefits and one of these benefits mentioned by Martin (2001) as the ecological gains of using electronic sources. According to the writer, 4 billion trees are cut around the world each year to provide paper for the printed materials. This allegation can be approved by just thinking about the amount of paper used for the books of a university student each term. Fischer (2003) assumes that another benefit of electronic sources is their ability to require less effort to be reached from all around the world with the help of computers and the Internet. This benefit of the electronic sources makes people use them more than printed sources as it can take at least two weeks to get a printed material from a different part of the World. Screen reading amount is increasing because of its benefits and Baron (2015) tries to prove this increase with three examples. The first example is about the e-book sale of Amazon.com as the percentage of e-book sale which was 1 percent in 2008 increased to 27 percent in 2013. The second example is about big publishers such as Oxford and Encyclopedia Britannica because they announced that they will not publish some of their sources anymore and will only release them online. Finally, the writer expressed that nearly a quarter of the children in the USA and Japan read from the screens today, and this amount will increase not only in these countries but also in other parts of the World.

National Literacy Trust's Annual Literacy Survey's results show a high amount of screen reading activities. According to the findings cited in Picton (2014), 97% of the children between 8 and 16 have computers and the Internet at home, 68,7% of them read from screens outside the school, and their e-book reading amount increased to 46% when compared with 2010 as it was 25%. Children's high amount of electronic material using tendency is clear, and this amount has an increasing inclination if the social sites and blogs, which include colorful and attractive contents, are taken into account. Liu (2004) supports that children read electronic sources because they like visual elements provided by the videos and games and these visual elements have various benefits as representation, organization, interpretation, transformation and decoration.

The success of electronic reading is also supported by the studies. One of these studies was carried out by Büyükyazı (2007). After the examination of traditional, internet, and control groups, results showed that despite not having a statistical difference, the internet group was the most successful one among them. The consequence can be interpreted as the accomplishment of the screen reading is valuable and should not be neglected. The same consequence is mentioned by Myrberg and Wiberg (2015) in their studies in which two groups as printed text readers and web page readers were examined. Results showed better results on the behalf of web page readers as these readers were better on 18 of the 24 questions and significantly better on 6 of them. Kasper (2003) found the same results in the study investigating over time comprehension results of the paper readers or electronic material readers. Electronic material reading had positive effects not only on the comprehension results of the students but also on their motivation and the amount of time spent on the reading activity. Motivation effect of using electronic sources can also be defined as a reason to use them to gather input.

It is understood from the studies that not only paper reading but also electronic reading shows better results when comprehension is taken into consideration as a target. At this point, it is worth to understand the comprehension be-cause, as Oxford (1990) explains, it is not only finding the meanings of all words, but it also requires more complex activities. Irwin (2007) describes the comprehension as "the process of using one's own prior experiences and writer's cue to construct a set of meanings

that are useful to the individual reader reading in specific socio-cultural context" (p.10) and Reading Study Group 2002 defines it as "the process of simultaneously extracting and constructing meaning through interaction and involvement with written language" (cited in Bernhardt, 2010, p.7). Definitions above make it clear that comprehension requires background knowledge about a specific subject and socio-cultural information related with the society that the text was written for or in. Both elements of reading which are writer's reference and reader's previous knowledge are also required for a prosperous process.

Comprehension necessitates various processes which are expressed by Hussein (2012) as thinking, evaluating, judging, imagining, and problem-solving after studying the comprehension process awareness of the 92 students. Students have to think about the letters or symbols to relate them by using their previous knowledge. After that, the evaluation process starts to check whether this relation process is correct or not. Students also judge the accuracy of the arrived result. Imagination and problem-solving processes are also used if required. Duke, Pearson, Strachan, and Billman (2011) studied on the comprehension process as well, but these researchers did not try to express the required procedures but desired to list the elements included in the process. Building disciplinary and world knowledge, which is named as background knowledge, was called as the first required procedure. According to the researchers, to complete the comprehension process and find the correct meaning, the reader should consult his/her background knowledge. Another element necessary for comprehension is the exposure of different documents. Being exposed to a high number of different texts will increase the readers' comprehension capacity. Motivation is another element required for the comprehension processes. Whether it is intrinsic or extrinsic and instrumental or integrative, motivation is required for the comprehension process. Comprehension strategies which can be cognitive, metacognitive, problem-solving etc., text structure, being engaged in discussions, developing lexicon and grammar, assembling the reading and writing skills, observation and evaluation, and diversification of the instruction are other required elements according to Duke et al. (2011).

Supplying the required elements and completing the processes are not always sufficient for the comprehension as it can be affected by other factors. As stated in Mushait (2003), FL proficiency and text difficulty are significant factors that should be taken into account as they affect the comprehension processes. FL proficiency, which can be related to the concept of developing lexicon and grammar in Duke et al. (2011), is an important factor, especially for the lower-level processes. It is only possible with proper language knowledge to discriminate the words with close meanings and find the correct meaning of similar structures. Text difficulty is another important factor, especially for FL students. As they are not as proficient as native students, difficult texts will make it more difficult for them to comprehend the passages correctly.

Language learners need input and Krashen (1985) expresses that comprehensible input is the only true way a learner has to acquire a second language. Reading is a significant way of providing the required input for FL learners. Because of this reason, selecting the right materials that will be used in the reading classrooms is crucial for the success of the learning process. These materials should be able to get students' attention and motivate them to read. It is clear from the results of most of the studies mentioned above that the younger generation desires to use electronic sources in their daily lives. Also, the studies mentioned above have certain proofs about the efficiency of electronic materials in the comprehension process. However, there are other studies which express contrary results. By taking into consideration these controversies among the studies, it is a necessity to check the results and find out Turkish university students' material choices and L1 and FL comprehension levels.

It is clear from the studies that reading is important, and it is changing its cover from the printed one to the electronic one. Because of this reason, it also is valuable to gather the effects of screen reading on comprehension. By taking into consideration those, this study aims to find the students reading choices of screen or paper reading and compare their paper and screen reading comprehension levels by also relating the results with their L1 and FL.

## METHOD

A combination of a cross-sectional survey design method which Dörnyei (2007) defines as "a snapshot-like analysis of the target phenomenon at one particular point in time, focusing on a single time interval" (p.78) and the correlational method was used in this quantitative study to understand university students' L1 and FL reading tendencies and compare their reading comprehension levels by also taking into consideration these tendencies. Considering the main aim of the study which is being able to understand university students' L1 and FL reading choices, compare their reading comprehension levels in both languages by also giving importance to their tendencies, and provide sufficient information for the language learning teachers and curriculum designers, research questions were developed as;

What type of materials do the university students read?

Is there a comprehension differences between the students who generally read electronic or printed materials?

Do other independent variables such as age, department, and gender create any difference?

## Research Design

Quantitative cross-sectional and correlational research designs were used together in this study since the study includes two separate phases which require different research designs. A quantitative method which comprises the process of collecting numerical data and using statistical programs (Dörnyei, 2007) is proper for the aims of the study because the researcher should use surveys in order to collect as much information as possible to understand university students' reading tendencies. Comprehension tests which were used to understand students' L1 and FL comprehension levels are also a type of quantitative data and they were analyzed by using a statistical program.

Although the first research question of the study necessitates the use of survey design, other questions can only be answered by making correlations, and this made the researcher use both designs together. Creswell (2005) defines the survey research design as “procedures in quantitative research in which investigators administer a survey to a sample or to the entire population of people in order to describe the attitudes, opinions, and behaviors” (p.354), and it is used when the direct observation is not possible (Balnaves & Caputi, 2001). Because of the reasons mentioned above, a survey research design was used in this study to collect as much information as possible from as many different university students as it could be. As the aim of the study is to understand students’ current reading tendencies, a cross-sectional survey design was preferred instead of a longitudinal one.

According to Creswell (2005), researchers use the correlational research design to connect variables or test scores. The second and third research questions require the comparison of the results of L1 and FL reading comprehension tests according to students reading material choices by also taking different variables such as gender, department, and age into account. Because of this reason, the correlational design should be used in this part.

## Participants

The number of the participants in the phases of the study is not the same because most of the students who joined phase one do not have the sufficient foreign language capacity to take a comprehension test in FL. The convenience sampling type, which was explained by Muijs (2004) as a sampling method which is very popular and used specifically by the people who do not have any difficulty in accessing a research site, was used in both phases of the study. It can also be mentioned that sample size is sufficient for this study when Creswell (2005) who mentions 350 people is enough for a quantitative study and Dörnyei (2007) who expresses the required number of people in a quantitative study as 100 are taken into consideration. Number of the participants in both phases can be seen in table 1 with independent variables of the study;

**Table 1. Number of the participants in the study**

		Phase one	Phase two
Gender	Male	336	98
	Female	497	125
Age	-18 and 18	88	18
	19-21	575	167
	22-24	148	28
	25 and 25+	22	10
	Undergraduate	568	139
Student’ level	College	40	-
	Associate (Vocational High School)	140	-
	Prep-Class	85	84

## Instruments

A structured questionnaire which was developed by the researcher in order to answer the research questions in a direct way and because of not having any questionnaire ready to use directly for the aim of the study was used in the first phase and it includes 18 questions in two different sections. Using a questionnaire in a quantitative study helped the researcher to gain as much information as possible in a short time and it is also one of the best ways to reach the desired sample size. Benefits of using questionnaire are also supported by Krathwohl (1998) who touches the questionnaires’ ability to be quicker and more economical while collecting quantitative data. The first research question of the study aims to reveal the general reading tendency of the university students and as Macaro (2001) indicates questionnaires are the best tools to find out the general tendency of a group of people. Using a structured questionnaire also helped the researcher to be quicker to complete data, be independent of the students’ language levels, solve the non-response problem, and help in reliable scoring (Allerson&Grabe, 1986; & Singhal, 2006). Reliability score of the questionnaire in the pilot study is  $\alpha .701$ .

In the second phase of the study, a reading comprehension test which includes two parts as L1 and FL comprehension sections was used. ÖSYM’s (Turkish national institute responsible for most of the exams) ALES (a test used for selecting academicians or post-graduate students) and YDS (a test in Turkey used for understanding students’ language levels) tests were used by getting the required permissions from the responsible institution.

## Setting and Data Analysis

Different faculties and high schools of Recep Tayyip Erdoğan and Atatürk Universities were used as research set-tings in this study. As these universities have students from different parts of the country, the research sample can be used to understand university students’ reading tendencies and comprehension levels in Turkey.

Both parts of the study (as survey design and correlational design parts) have numeric data so that SPSS 23.0 was used in the data analysis process. SPSS did not only make the analysis process easier but also increased the objectivity of the study. Frequency test and Crosstabs were used in the first part of the study to understand students’ reading tendencies. In the correlational design



part of the study, it was understood with the application of Kolmogorov Smirnov and Shapiro-Wilk tests' results that research data is nonparametric so non-parametric Spearman's rho and Kruskal Wallis tests were used to make correlational analysis

## RESULTS AND DISCUSSION

### What Type of Materials Do the University Students Read and the Effects of Other Independent Variables Such as Age, Department, and Gender?

Students' general reading choices, L1 reading choices and FL reading choices will be examined in this part of the study. Participants' general reading choices were tried to be marked as printed materials, electronic materials, or both of them. The reliability score of the data collection tool is .766. After the analysis of the answers of the 833 participants, results were set in the table below.

**Table 2. Students' general reading tendencies**

		General reading tendencies			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Electronic	393	47.2	47.2	47.2
	Printed	341	40.9	40.9	88.1
	Both of them	99	11.9	11.9	100

Although the amount is low, participants of this study generally desire to read electronic materials. 47.2 percent of the university students chose electronic materials as their first reading documents. This result shows that young generation tries to use electronic materials not the printed ones, and the study is supported by Baron (2015) and Tanner (2014) who also expressed high amount of electronic material owning or reading. In his research, Baron (2015) revealed that e-book sales in amazon.com increased to 27 percent in 2013 when compared with 2008, which was only 1 percent. Tanner (2014) mentioned the results of a study which was carried out in Pew Research Center and expressed that 28% of American citizens read at least one e-book in 2013 and this was more than the previous years. Baron (2015) also explains the widespread use of electronic sources by expressing that Project Gutenberg includes 46000 books.

Independent variables do not create any differences except the gender variable. Female participants are willing to read printed materials contrary to the male participants whose primary choice is electronic ones. 47.5 percent of the female students choose to read printed materials; however, only 31.3 percent of the male students read printed versions of the same materials. On the other hand, electronic material using ratio of the male students is 57.4 % while it is 40.2 % for female students. Considering students' education degree as a variable does not show any difference since only college students have a high percentage of printed material reading. The relation of the students' ages and their electronic material reading tendency have opposite directions because only students who are 25 or older desire to use printed materials more than electronic ones. Despite having some differences according to the independent variables, university students in this study like reading electronic sources so using electronic sources in the language classrooms will help them to continue their routines and that can be beneficial for the learning atmosphere. According to the results, younger students read electronic materials more. Because of this reason, it will be better for ELT teachers to use electronic sources to get students' attention.

It is clear with this study that nearly half of the university students desire to use electronic sources as their primary reading materials when the internet sites, social networks and blogs are taken into consideration. It is difficult not to accept these elements as reading materials because young generation gathers most of their knowledge from these kinds of sources. Students use electronic sources more than they do it in the previous years (as mentioned in Baron, 2015), and their electronic material using habit should be interiorized. Dissimilarities between the male and female participants do not change anything because 40.2% of the female students like reading electronic materials, which is not below the general printed material reading level. When the results of this study and other studies such as Baron (2015) and Tanner (2014) are taken into account, it is understood that it is not true to express that young generation do not read any-thing because the reading habit of the new generation is changing from printed materials to the electronic ones. So, teachers and syllabus designers should give more importance to the electronic sources during the course designing process as using electronic sources can both increase the student motivation and create better classroom atmosphere be-cause of students' reading tendencies and habits.

Examining the questions 5th, 6th, 8th, 9th, 10th, 11th, 12th, and 13th of the data collection tool revealed that although students like printed books and owning them, they use electronic sources in their lives. When the students were directly asked about their reading choices, they expressed that they generally read printed books; however, indirect questions made the high use of electronic sources apparent. Students' electronic source reading tendencies can be understood easily with the examination of their course material choices. 29.8 % of the students want to read books with the help of their phones while 20.4 % of them want to carry books. Contrary to their indication of desiring to use printed sources, their behaviors show the opposite direction, and this finding does not change even the independent variables of the study are taken into account. Studying lesson or researching something means to search on the Internet for the young generation since the question 5 in the data collection tool which asks them "what would they do when they are given homework" shows that 48.3 % of the participants would find a

computer and search it on the Internet, and 41.3 of the participants would find a computer and search it on the Internet and they would go to the library if they need to. Only 1.7 % of the students would explore it in the library, and 8.8 % of them would search it in the library and would use the computer and the Internet if they need to. Participants also check the Internet when they need to learn a specific subject because question 6 which asked the students “what they would do if they need to give a command on the Microsoft Excel software but they do not know how to do it” shows that 97.4 % of the students answered as “I will check it on the Internet”, and only 2.6 % of them will search it from the books. Students like using electronic sources while reading a book, doing homework or carrying out research. It can be easy for them to use electronic sources in ELT courses as they already do it outside the classroom. Allowing them to use electronic sources in the classrooms can result in better learning atmospheres and more successful learning processes.

Students general reading habits were examined according to not only in the categories such as printed, electronic, and both of them but also for the material types. Results of question 7, which asked students what kind of materials do they read in general, are shown in table 3;

**Table 3. Students’ reading tendencies according to material type**

		Never		Rarely		Sometimes		Several times in a week		Every day	
		F	%	F	%	F	%	F	%	F	%
1	Printed book	54	6.5	113	13.6	262	31.5	225	27	179	21.5
2	Printed newspaper	194	23.3	252	30.3	252	30.3	98	11.8	37	4.4
3	Book from computer, mobile phone etc.	199	23.9	133	16	235	28.2	146	17.5	120	14.4
4	Blogs from computer, mobile phone etc.	104	12.5	90	10.8	187	22.4	242	29.1	210	25.2
5	Comments on the social sites such as Facebook or Twitter	61	7.3	88	10.6	148	17.8	207	24.8	329	39.5
6	Newspaper from the computer or mobile phone	192	23	149	17.9	190	22.8	167	20	135	16.2

The examination of table 3 makes it certain that students use electronic sources every day. 39.5 % of the students read comments on social sites such as Facebook and Twitter and 25.2 % of them read blogs from a computer, mobile phone etc. Contrary to these, printed material using amount is low. Only printed books have a remarkable amount with 21.5 %. Blogs from a computer or mobile phone etc. have the highest percentage with 29.1 when the choice as several times in a week is examined. Despite printed books being the second most read material with 27%, comments on the social sites such as Facebook and Twitter is the next most read material, and that also makes it evident that electronic materials are used more than printed ones by the university students. It is understood from the analyses of the collected information that students have a significant amount of desire to read electronic sources. Using social sites and internet blogs can help language teachers to concentrate the students to the courses by letting them do what they desire.

University students’ L1 and FL reading choices were also examined separately to be able to use them in their language courses. As understood from the table 4, students’ L1 reading choices show similarities with their general reading tendencies;

**Table 4. Students’ most desired reading type in L1**

	Frequency	Percent	Valid Percent	Cumulative Percent
Newspaper	61	7.3	7.3	7.3
Online newspaper	68	8.2	8.2	15.5
Magazine	41	4.9	4.9	20.4
Online magazine	10	1.2	1.2	21.6
E-mail	7	.8	.8	22.4
Book	323	38.8	38.8	61.2
Other Electronic Forms	22	2.6	2.6	63.9
Internet blogs	72	8.6	8.6	72.5
Social sites	210	25.2	25.2	97.7
Electronic books	19	2.3	2.3	100

It can be deduced from the table that except for printed books (38.8 %) and social sites (25.2%), there is not any material type that has a ratio of more than 10%. Although most desired reading material type of the students is printed books, social sites are the second most desired materials, and they are followed by the internet blogs and online newspapers, which are also electronic sources. Because of this reason, it is not a mistake to express that participants have a high amount of electronic material use. Results of the analysis of the students’ most desired L1 reading material type also support the previous findings and point out the significance of electronic materials among the younger generation. The continuous development of technology increased the use of electronic sources. Especially, as understood from the findings and cited literature, electronic sources ability to being easy to access and carry and their economic benefits make young generation use them more when compared with the printed ones.



There is an essential difference between male and female participants especially when the printed book reading amount is taken into consideration. Contrary to the female students who have 47.9 % of printed book reading desire, only 25.3% of the male students think that printed books are their most desired material type. Male students use the social sites and internet blogs more than female students, and this can be construed as male students' most desired reading material types are electronic sources but female students' most desired reading material types are printed ones. Another difference is created by the age of the participants as older people chose printed sources as their most desired material type; nevertheless, younger participants generally chose electronic sources.

In addition to the students' most desired reading types, their reading frequencies were also examined in order to discriminate between what they wish to use and what they use as reading material in their L1. Results acquired from the collected data are shown in table 5;

**Table 5. Frequencies of L1 material reading**

		Never		Rarely		Sometimes		Often		Always	
		F	%	F	%	F	%	F	%	F	%
1	Newspaper	138	16.6	247	29.7	309	37.1	94	11.3	45	5.4
2	Online newspaper	136	16.3	187	22.4	234	28.1	174	20.9	102	12.2
3	Printed book	29	3.5	107	12.8	279	33.5	254	30.5	164	19.7
4	E-Book	197	23.6	212	25.5	248	29.8	111	13.3	65	7.8
5	Magazine	137	16.4	221	26.5	294	35.3	133	16	48	5.8
6	Online magazine	258	31	203	24.4	214	24.7	117	14	41	4.9
7	Internet blogs	131	15.7	122	14.6	226	27.1	211	25.3	143	17.2
8	Social sites	50	6	65	7.8	132	15.8	244	29.3	342	41.1
9	E-mail	133	16	143	17.2	228	27.4	188	22.6	140	16.8

Contrary to the students' most desired reading type which was printed books, students use social sites more frequently. 41.1 % of the students expressed that they always use social websites, and 29.3 % of them often use these sites; nevertheless, usage ration of printed books is just 19.7 % always and 30.5 % often. Only 13.8 % of the students chose the never and rarely when the social sites are taken into account. Other most frequently used material types are internet blogs, e-mails, and online newspapers. The young generation of the 21st century like reading electronic sources and the success of these types of sources will increase because, according to the results, younger students read electronic materials more than older ones and today's young generation will be adults in the future.

Students' FL reading tendencies and frequencies were also examined to provide information for the foreign language teachers and curriculum designers who will teach or plan reading courses. Table 6 shows students' most desired reading types in their foreign language, which is English.

**Table 6. Students' foreign language most desired reading materials**

	Frequency	Percent	Valid Percent	Cumulative Percent
Newspapers	14	1.7	1.7	1.7
Books	83	10	10	11.6
Other Electronic Forms	21	2.5	2.5	14.2
Magazines	17	2	2	16.2
Electronic magazines	16	1.9	1.9	18.1
Valid E-mails	10	1.2	1.2	19.3
Internet blogs	64	7.7	7.7	27
Social sites	173	20.8	20.8	47.8
Electronic books	2	.2	.2	48
Electronic newspapers	21	2.5	2.5	50.5
None of them	412	49.5	49.5	100

In opposition to the most desired L1 materials by the students, students think that they are eager to read social sites most as 20.8% of the participants expressed that they read social sites most in English when compared with other types of materials. Nearly half of the students do not read in English because of various reasons, such as not being proficient enough in English. Despite being the most desired L1 and second most used L1 material type, printed books have only a 10% ratio when the FL is taken into account. Internet blogs are the third most desired FL materials. Results of the analysis mentioned above make it evident that students chose to read FL electronic materials, not printed ones. Regarding the results of students' FL reading tendency analysis, it will not be wrong to express the benefits of using electronic sources in ELT courses because of students' inclination of reading from these kinds of sources.

Male students read more in their FL when compared with female students. The order of the most desired FL reading materials also shows dissimilarities between male and female students. While male students choose social sites and internet blogs as their most desired FL reading materials, female students' most craved FL materials are social sites and printed books. In addition to this, male students have a higher amount of social site reading percentage than female students which means male students are more addicted to electronic sources. Reading amount also shows divergences among the students from different age groups. Students who are 25 or older read more than other students, but all the students think that their most desired FL reading materials are social sites.

Students' FL reading frequencies were also examined in order to understand how often they use the printed or electronic sources and results were shown in table 7;

**Table 7. FL materials reading frequencies**

		Never		Rarely		Sometimes		Often		Always	
		F	%	F	%	F	%	F	%	F	%
1	Newspaper	608	73	97	11.6	83	10	34	4.1	10	1.2
2	Online newspaper	573	68.8	77	9.2	99	11.9	48	5.8	36	4.3
3	Book	514	61.7	78	9.4	124	14.9	77	9.2	40	4.8
4	Electronic book	581	69.7	86	10.3	103	12.4	50	6	13	1.6
5	Magazine	586	70.3	98	11.8	99	11.9	39	4.7	11	1.3
6	Online magazine	594	71.3	81	9.7	94	11.3	48	5.8	16	1.9
7	Internet blog	506	60.7	65	7.8	89	10.7	114	13.7	59	7.1
8	Social site	468	56.2	39	4.7	73	8.8	125	15	127	15.2
9	E-mail	560	67.2	77	9.2	92	11	54	6.5	50	6

Students' social site reading amount is relevant with their most desired reading material choice as 15.2 % of the students always, and 15% of them often read from social sites. Social sites are followed by the internet blogs and printed books, but neither of them has more than 10% reading amount neither in always nor in often frequencies. It is evident from the analysis that students not only desire to use electronic sources in their FL, but they also use them in their real lives. Social sites which are used to be in touch with the people around the world is an effective factor here. These social sites or internet blogs can be used as FL reading materials to provide input in the desired way.

It can be expressed that despite not having a significant difference, participants read and desire to read electronic materials more than printed ones in all categories such as general reading, L1 reading and FL reading. Because of this reason, it will not be accurate to have an idea that young people or teenagers do not read. Young people in the 21st century read, but their reading habits show differences from older people as they generally enjoy reading electronic sources, especially social site comments. Living in a virtual atmosphere in which they share information or communicate with the help of social sites might have students change their reading habits from printed ones to electronic sources. As Kılıç (2016), Yeşil (2015), and Güçlü and Kökmen (2014) express, young generation read electronic sources not aimlessly, they read them to get the news or to find the required information. It is not practical for most of the students to go to the library and look for information there as it is easier to google or just go that building, which is named library, in order to use its internet sources. Language teachers of this era should consider students' beliefs and behaviors about that choice and change themselves in order to be able to decrease the generation gap and motivate students, because, as Taboada and McElvany (2009) mention, reading choice is effective on reading success, and have the de-sired classroom.

### **Is There a Comprehension Differences Between the Students Who Generally Read Electronic or Printed Materials? And Do the Independent Variables Such as Age, Gender and Education Level Make Any Discrimination?**

Non-parametric tests were used in the analysis process of the comprehension test results because Shapiro-Wilk and Kolmogorov-Smirnov tests showed that data collected with comprehension tests are not in a normal distribution. According to the results, table 9 below shows L1 reading comprehension and the effect of students' material choices as printer, electronic, or both;

**Table 8. Kruskal-Wallis Test of L1 comprehension result**

Test Statistics <sup>a,b,c</sup>	
Mother language comprehension test result	
Chi-Square	3.189
df	2
Asymp. Sig.	.203

The Asymp. Sig. column of the table, which is .203, shows an insignificant relation of participants' material choices and their L1 reading comprehension. Students' material choices, namely whether students read electronic, printed, or both types of materials do not have a significant effect on their comprehension levels. Contrary to the belief as electronic sources do not develop

the reading ability, and they decrease the comprehension level (mentioned in Tuncer and Bahadır (2014) and Mangen, Walgermo, and Bronnack (2013)), students in this study were not affected by the materials they generally read. It should be considered that electronic materials do not have negative effects on the young generation and they can be used in the language education classrooms. Teenagers should not be remonstrated because of dealing with electronic sources more than their parents do.

**Table 9. Mean ranks of L1 comprehension**

	Ranks <sup>a</sup>		N	Mean Rank
	printed or electronic materials-general tendency			
Mother language comprehension test result	electronic		107	108.91
	printed		89	109.52
	both of them		27	132.43

As seen in the table above, the mean comprehension level of 107 students who read electronic materials is 108.91, 89 students who read printed sources have 109.52 mean comprehension score and 27 students who mentioned that they read both types of materials have 132.43 mean comprehension levels. It is clear from the results that students who read printed or electronic sources have almost the same comprehension levels, but students who read both types of materials in their lives have slightly higher mean comprehension levels than others. Findings confirmed the equality of habit of reading printed or electronic materials.

**Table 10. Kruskal-Wallis Test result of FL comprehension test**

Test Statistics <sup>a,b,c</sup>	
Target language comprehension test result	
Chi-Square	1.632
df	2
Asymp. Sig.	.442

The value in the Asymp. Sig. column of the table shows an insignificant relationship between the FL reading comprehension and students' material choices which means reading electronic, printed or both types of materials does not make any difference on students' reading comprehension levels. There are other studies, such as Sun, Shieh, and Huang (2013) who studied on electronic and printed presentations and found no difference, Margolin, Driscoll, Toland, and Kegler (2013) who studied comprehension levels of 90 individuals with an experimental study and found no dissimilarities among 3 groups, and Kol and Scholnik (2000) who also were unable to find a noticeable difference, that prove the findings of this research by expressing the insignificant similarities of electronic and paper reading.

Students' FL reading mean scores also support the usability of electronic sources in foreign language courses. As can be viewed in Table 11, mean scores of the electronic material desired students is 111.93; printed materials desired students' is 107.89, and students who wished to use both types of materials have a mean score of 125.83. Despite some contrary studies such as Ackerman and Lauterman (2012) and Jeong (2012) who found some comprehension differences on the behalf of printed materials, findings of this study reveals that there is not a statistical difference, but students who use electronic sources have a slightly higher mean FL comprehension scores when compared with students using printed materials. Nicoli (2015) also studied the same subject with 231 participants and a test which is the combination of multiple-choice and short answer questions. The researcher found no statistical differences among the students who read electronic or printed materials. Besides, Matthew (1997) found that there is not a significant relation with the comprehension levels of the students, but the storytelling abilities of the students who read electronic materials are better. Electronic reading has other benefits, and Grimshaw (2007) indicates the use of electronic or mouse over dictionaries as one of these benefits.

Certainly, electronic reading does not create any deficiencies when comprehension is considered, but it has advantages on the process and affective factors. Because of this reason, language teachers should be eager to use electronic sources more in their classrooms. Students are eager to use electronic sources and using these sources, especially social sites, in the FL reading courses will give the students the chance of learning in a way which they enjoy. This process of learning in the desired situation can be helpful in creating more pleasant classroom atmospheres and increasing success. Wiseman and Belknap (2013) and Momani, Farhan, and Qarni (2015) who believe the benefits of technology on TESOL education and using internet applications on reading comprehension education support the use of electronic sources more in the teaching processes.

**Table 11. Mean scores of FL comprehension test**

	Ranks <sup>a</sup>		N	Mean Rank
	printed or electronic materials-general tendency			
Target language comprehension test result	electronic		107	111.93
	printed		89	107.89
	both of them		27	125.83

## CONCLUSION AND SUGGESTIONS

As being one of the most important passive skills of language learning, it is significant to give importance to reading. Reading started with the cave writings and is going on to change its shape towards an indefinite direction because of electronic reading. Electronic or screen reading which can be expressed as the comprehension of the meaning by reading the materials from a computer, smartphone or e-reader has started to be used more these days. This study tried to find the university students' reading material choices and comprehension levels in a relationship.

Results of this study make it apparent that the young generation is reading not from printed sources any more but from electronic sources. The only printed material type which is in a struggle to be used is published book. Students do not use other kinds of materials because it is easier and quicker for them to use the electronic versions. Participants of this study desired to use electronic documents, especially social sites or internet blogs, both in their L1 and FL. The electronic material reading amount is even higher in FL because they can reach them more effortlessly. Other studies, such as Tanner (2014) and Baron (2015), also support these results. Although some studies such as Myberg and Wiberg (2015) reveal that screen reading has some disadvantages for example "computer vision syndrome" or "screen related spine", they have not been proved scientifically yet. This increasing amount of screen reading entails language educators to use electronic materials more in order to motivate students by fulfilling their desires and interests. In addition to their capacity to affect the learning process, electronic materials also provide audio-visual elements, easy access and ability to use technological tools such as mouse over dictionary for FL learners.

In addition to these findings, the study cleared the suspicious about the understanding deficiency of the individuals who read electronic materials as the results showed that students who read electronic or printed sources do not have a significant comprehension difference both in their L1 and FL reading tests. Students have nearly the same results in both tests. Reading electronic sources does not decrease comprehension level. As the students have a high desire to read electronic sources not printed ones and the students who read electronic materials do not have any comprehension deficiencies in both their L1 and FL, it will be better for the language teachers to use electronic sources more in their language classes. Participants of this study only read books as their printed materials, but when they are asked about researching a subject or doing homework, their first attempt is to check the Internet. These students can read books in their free time or as an activity, but they enjoy using electronic sources in the courses. Using electronic sources in the reading courses can get students' attention and motivate them. Motivated students can create a pleasant classroom atmosphere and be active in the learning processes. Although electronic reading has some disadvantages such as not being useful to take notes and the deficiency of the readers not being able to see the whole passage in the courses, these do not decrease students' motivation and course success, and some of the problems have been solved (Microsoft Word and Adobe Reader are providing an opportunity to take notes) which means other disadvantages can also be fixed. Both electronic and printed materials can have advantages and disadvantages; nevertheless, students like electronic sources and they do not have any comprehension failures while using them. Therefore, teachers should create more opportunities to use electronic sources and technology in their classrooms. Letting students use the electronic sources in the language education will probably increase the success because of students' eagerness, help to decrease the affective barriers, and enhance the amount of input with the help of the increasing amount of reading activities.

This study examined university students' reading tendencies and their L1 and FL comprehension levels by using two state universities as research areas. Even though those universities have students from different parts of the country, using students from other universities can improve the research site and increase research's reliability. As being a quantitative study, students' ideas about screen reading were restricted. Using an interview form in addition to the questionnaire can help students reveal their ideas willingly. This cross-sectional study only examines university students' reading tendencies in the 21st century, and it can also be developed by using the same data collection tools in a longitudinal study to understand the variation in time.

These suggestions can be expressed according to the results of the study:

- Students like using electronic sources more than printed ones. So, it can be beneficial for the language teachers use these kinds of sources to get the attention of the learners.
- Students are accustomed to using electronic sources, as their reading frequency is high. Because of this reason, using electronic sources can help them increase classroom success.
- There are no comprehension differences between the groups of students who read printed or electronic sources which means, using electronic sources in the classroom will not decrease the accusation level.
- Although there is not any statistical difference between the students' comprehension who read printed or electronic materials, FL comprehension levels of the students who read electronic materials are higher. Using electronic sources can increase FL success.

### Ethics Committee Approval Information

OSYM permission to use exam questions "OSYM, 04/11/2016, number:63282839-824.01.04-E.38676"

Atatürk University Permission "Atatürk Üniversitesi, 16/12/2016, number:88179374-302.08.01-E.1600304611"

Recep Tayyip Erdoğan University Permission "Recep Tayyip Erdoğan Üniversitesi, 22/12/2016, number:87374136-302.08.01-E.4298"

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