Investigation of the Screen Reading Self-Efficacy Perceptions of Turkish Language and Literature and Turkish Teacher Candidates Perspective

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Article Info	Abstract
	The rapid development of information technologies in the century we live in has caused significant changes in the field of education. Today, in the information age, traditional reading models with printed materials such as books, newspapers, and magazines have been replaced by reading computers, mobile phones, presentations, and billboards. Thus, information is conveyed to students at all levels through tools such as computers, the Internet, CDs, videos, and printed materials during the education process. It has become necessary to understand the importance of this type of reading, screen reading, in the process of native language teaching and to use it effectively in practice. In this study, it was aimed to examine the Screen Reading Self-Efficacy Perceptions of Turkish Language and Literature and Turkish Teacher Candidates in terms of variables such as age, gender, income level, frequency of internet use, etc. The sample group of this study in the survey model consists of 379 Turkish Language and Literature and Turkish Language Teacher candidates studying at a university in the east of Turkey. The research data was collected with the screen reading self-efficacy perception scale (Ulu, 2018), which has three subcategories: understanding, page management, and eye health dimension. As a result of the research, it is seen that the Screen Reading Self-Efficacy Perceptions of Turkish Language and Literature and Turkish Teacher Candidates are generally in favor of screen reading. Additionally, as a result of the research, it was concluded that Turkish Language and Literature and Turkish Language Teacher candidates' gender and basic computer skills differ in their screen reading perceptions.

Introduction

In the century we live in, rapid changes are experienced in the field of information technologies. These changes have provided important opportunities for producing information faster and sharing the information produced. Due to technological developments, radical changes have occurred in the society in which the individual lives, both in his daily and academic life. With the integration of innovations into society, a rapid transition to significant changes has been achieved in the education process. Digital innovations such as television and computers are

undoubtedly one of the most important changes experienced by societies of all classes in the last hundred years. As television and computers have dominated human life in recent years, there have been radical changes in individuals' habits. These changes primarily guided the educational process of the individual. As internet use becomes widespread and access becomes easier, computer technology has also revealed new education models based on screens. Screen-based models offer new opportunities to individuals in all areas of life and make human life easier. Nowadays, the audience, that is connected to the screen such as television, now prefers computers, tablets, notebooks, and mobile phones. Thus, with the introduction of these technological devices into human life, humanity has made a rapid transition to a digital world. (Gentikow, 2010). This situation, created by the computer screen and the internet as an information and communication environment, has caused a change in traditional literacy paradigms. Undoubtedly, literacy is not a fixed concept. With the digitalization of the education and training process, the definition of reading has been redefined. The definition of reading, decoding, and voicing written texts, has now been replaced by the definition of understanding and structuring all kinds of concepts visually and spatially. Accordingly, in the education process, the traditional reading model from printed materials has been replaced by the on-screen reading model. (Sutherland-Smith, 2002; Leu 2000). Thus, new technological differences are added to the screen-based reading model every day (Selfe, 1999). Yaman and Dağtaş (2013) stated that the definition of literacy has changed gradually and in harmony with technology. Today, students at all levels have experienced a rapid transition from natural life to digital platforms with the influence of the digital age. Digital environments have become an area that is not only for students to obtain information, but also offers different options such as entertainment, listening to music, shopping, and spending their free time, and increasingly eliminate the boundaries between the virtual and real world. For this reason, digital environments have become increasingly effective in people's daily lives.

The effects of the digital age are especially evident in education. In the past, information was distributed through printed materials such as books, magazines, and newspapers, but today information is disseminated rapidly through technological tools such as computers, television, radio, and video. In particular, tools such as computers and the internet greatly facilitate the production, dissemination, and access of information. For this reason, many people prefer computers instead of books to access information and acquire new information by reading on screens. As a result of this change, a new reading approach called "screen reading" has emerged. The screen-based reading paradigm is now more popular among readers who wish to advance their personal growth, educate themselves in line with 21st-century needs, and keep up with technological advancements. The majority of states that are making progress in the sphere of education are rapidly expanding their use of the screen reading strategy. The digital transformation in information availability is what led to this change in the reading model (Güneş, 2010). It is now vital to learn how to comprehend and interpret the visual aspects that surround practically every part of an individual's life due to the digital transition and the screen reading talent. Screen reading is one of the digital competencies of the 21st century and one of the most crucial skills. Young people today use screen reading as a way to produce information, have fun, and pass their spare time in the digital environment (Zhang and Duke, 2008). On an international level, this issue is escalating quickly (Kol and Scholnik. 2000).

Our current digital age has replaced physical libraries with online libraries, books, and other resources that provide access to information. As a result, it has become apparent that those who want to read should do so on displays

like those found on phones, laptops, or televisions. Our screen experience, which started with the introduction of television into our lives in the 1960s, increased over the years with the introduction of screens of different devices into our lives (Öztürk, 2010). In these years, screens, especially television and computer screens, began to be perceived as an indicator of development. (Introna and Ilharco, 2006). Thus, as a result of rapid changes in the age of technology, literacy is turning into a more technology-centered structure (Chauhan and Lal, 2012; Shen, 2006; Elkatmış, 2018).

The introduction of screen reading into our lives parallels the introduction of technology into our lives. For this reason, knowing the course of technology development from the first computer to the present is important in understanding the history of screen reading (Duran and Dolaylar-Özkul, 2015). With advancing communication technologies, in addition to television, many types of screens have appeared at home and in workplaces: cinema screens, personal computer screens, mobile phone screens, and tablets have begun to dominate human life. (Introna and Ilharco, 2006). Thus, reading from the screen has become a sought-after and desired skill for today's individuals (Yılmaz, 2019).

In the 21st century, readers who prefer to read from printed books, magazines, and books are,e gradually giving up these habits and doing the act of reading interactively in digital environments (Leu, Kinzer, Coiro, & Cammack, 2004; Chou, 2012). The emergence of e-books and interactive books along with digital innovations is one of the most important factors in changing the habits of individuals. Reading from a screen has many advantages over reading from printed materials. The main advantages of these are screen scrolling, being able to interpret book images, and interacting with the text (Piolat, Roussey, & Thunin, 1997; Gould, Alfaro, Barnes, Finn, Grischkowsky, & Minuto, 1987; Hansen & Haas, 1988; Yılmaz, 2019).

Screen reading is the act of electronically reading texts displayed through the screens of technological devices (Chou 2009; Güneş 2010). Screen reading is a type of reading that has gained momentum with the introduction of the internet into human life and has also developed with technological developments (Yaman and Dağtaş, 2013). While in previous periods, reading was done through printed texts such as books and magazines, with the development of technology, printed sources have been replaced by digital resources. Thus, we encounter texts in electronic media in the form of e-books and e-magazines. An individual who reads performs all processes such as seeing, perceiving, recognizing words, and structuring them in the mind while reading on a screen, depending on the screen.

The reading environment is organized according to the screen. In short, screen reading requires different skills in terms of eye movements, comprehension, and mental structuring. This situation reveals a new type of reading called "screen reading" and a new type of reader called "screen reader" (Macit and Demir, 2016). The type of reading, which can also be called screen reading, has accelerated reading and increased its functionality.Today, one of the most important factors in determining the development level of societies is their high literacy rate. Reading is considered a fundamental dynamic that nourishes and develops thought since the early periods of humanity. It is closely related to the individual's ability to discover his/her potential and shape his/her relationships with the society he/she lives in, as well as gaining and using the ability to read. This ability enables an individual

to become conscious and determine his role in society. (Macit and Demir, 2016). Reading skill is an important acquisition for individuals at all levels of the education process. Technology-related changes first affect young individuals. Theinning of theshanges, it also afts the daffectd academic life of the individual. At the same time, acquiring these literacy skills has become a necessity in today's information age. This necessary change covers all individuals on a universal scale (Castek et al., 2007). Technological skills are necessary to survive in the 21st century (Armstrong and Warlick, 2004; Kuo, 2005; Sutherland-Smith, 2002). Because information and communication technologies enable individuals to learn new skills, change individuals significantly, and make it easier to share information with others and work together (Güneş, 2010).

Reading, which has a special value in language education in gaining both language awareness and other skills effectively, is used as the primary acquisition and sharing tool in all educational disciplines from the beginning of basic education to the end of higher education. In this period, also called the information age, there is a very comprehensive change in our lifestyles. technological transformation is taking place (Maden, 2012). A new social order has been created based on technology, and within this new order, several new terms and practices such as e-government, e-commerce, e-law, and e-society have emerged. However, for these new concepts to gain meaning and be adopted by society in general, it is necessary to consider electronic or information-based literacy (e-literacy) as well as the traditional concept of literacy. However, it would be more appropriate to think of electronic literacy or literacy skills as complementary to traditional literacy rather than competing with them (Reinking, McKenna, Labbo & Kieffer, 1997; Tuman, 1994).

Instead of many traditional applications, a trend has begun towards modern and technological applications that can be considered the new normal in the digital world of the 21st century. It is seen that today's students spend a lot of time with digital media, mostly during their out-of-school time. In the last twenty years, with the development of technology and its greater integration into our lives, there have been significant changes in the reading habits of especially young individuals. These changes have caused significant changes in the reading habits of individuals at all levels, starting from primary school to higher education.

One of the main reasons for this change is the impact of reading behavior in mass media and digital media environments on reading habits. It can be stated that the emergence of digital media and the richness of the digital environment it brings has created changes in reading and the reading habits of individuals. In this context, we now have a modern understanding of reading offered by digital environments rather than the understanding of reading offered by the traditional world.

Purpose of Research

Reading skills that adapt to technology can be used on electronic materials as well as printed materials. It has become necessary to understand the importance of this type of reading, screen reading, in the Turkish language teaching process and to use it effectively in practice. Based on these reasons, the research aimed to gradeify screen reading types and determine the opinions of Turkish teacher candidates regarding screen reading. The following questions were answered to further the research's goal.

1. Is there a statistically significant difference between teacher candidates' assessments of their screen reading self-efficacy and gender-related variables?

2. Is there a statistically significant difference between teacher applicants' opinions of their screen-reading abilities and the age factor?

3. Does the department/major science variable significantly affect teacher candidates' evaluations of their screen reading self-efficacy?

4. Is there a statistically significant difference between teacher candidates' judgments of their screen reading self-efficacy and the grade level variable?

5. Do judgments of self-efficacy in screen reading among teacher candidates and their levels of income differ significantly?

6. Do perceptions of screen reading self-efficacy and social media use differ significantly among teacher candidates?

7. Does the perceived self-efficacy of screen readers among teacher candidates differ significantly depending on their grade levels?

8. Does the sense of screen reading self-efficacy among teacher candidates alter significantly depending on whether or not they have completed courses in information technology and instructional technology?

9. Are the opinions of teacher candidates' screen reading self-efficacy and the amount of time they spend online significantly different?

10. Screen reading self-efficacy perceptions and pre-service teachers' opinions of cellphones, tablets, etc. Do their uses differ significantly from one another?

11. Are the judgments of teacher candidates' screen reading self-efficacy and the social media platforms they utilize significantly different?

12. Do teacher candidates' opinions of their screen reading self-efficacy and the reasons they use the internet differ significantly?

Restrictions of the Study

This research is limited to Turkish Language and Literature and Turkish teacher candidates studying at Atatürk University Kâzım Karabekir Faculty of Education.

Method

Model of the Research

This study, which aims to examine the Screen Reading Self-Efficacy Perceptions of Turkish Language and Literature and Turkish Teacher Candidates, was prepared with the descriptive scanning model, one of the quantitative research methods. Scanning model; It enables the quantitative or numerical description of trends, attitudes, or opinions throughout the universe through studies conducted on a sample selected within a universe (Creswell, 2014). In other words, determining the factors affecting the result requires the best prediction of the result (Gedik et al., 2019). If the problem requires identifying factors affecting an outcome, understanding the benefit of an intervention, and the best predictors of the outcome, then a quantitative approach is best (Creswell,

2014). The survey model is a research approach that tries to describe a past or present situation as it is. For this reason, in this research, the descriptive survey model, one of the quantitative research methods, was used for the research. Thus, with the descriptive screening model, the factors affecting the attitudes of teacher candidates will be determined and the best predictors of the result will be understood (Karasar, 2009).

Study group

The sample of the research consists of Turkish and Turkish Language and Literature (n=379) teacher candidates studying at different grade levels at Atatürk University Kâzım Karabekir Faculty of Education in the 2022-2023 academic year. The demographic characteristics of teacher candidates are stated in Table 1.

Data Collection Tool

The data of the study, which aims to Examine the Screen Reading Self-Efficacy Perceptions of Turkish language and literature and Turkish teacher candidates, were collected with the Screen Reading Self-Efficacy Perception Scale (Ulu, 2018). There are a total of 16 items on the scale. Items 1, 2, 7, 8, 11, and 12 (6 items) are usefulness; Items 3, 4, and 5 (3 items) belong to understanding, items 6, 9, and 10 (3 items) belong to page management, and items 13, 14, 15 and 16 (4 items) belong to eye health factors. The scale is rated on a 5-point Likert format as not at all suitable for me, not suitable for me, I am undecided, suitable for me, and completely suitable for me (Ulu, 2018).

Analysis of Data

In the analysis of the data collected in the study, 6 different statistical analyses were applied and these analyses were made on the computer with the SPSS for Windows 22.00 statistical package program. The study data were analyzed with frequency, percentage, t-test for independent groups, Mann Whitney U test, One-Way Analysis of Variance (ANOVA), and Kruskal Wallis H test.

Research Ethics and Ethics Committee Permission Information

The Atatürk University Social and Humanities Ethics Committee Educational Sciences Unit Ethics Committee decision, dated 11.04.2023, and numbered 05/07, gave the researchers ethical approval before they began the project and began collecting data. The researchers prepared for the study in line with the (YÖK, 2023) published research and publishing ethics directive and conducted the study in compliance with this directive at all times.

Results

Table 1 provides details on the descriptive traits of the Turkish and Turkish Language and Literature Teacher Candidates who were involved in the study.

Table 1. Detailed Information on Turkish Language and Literature Teacher Candidates

Variable	Options	n	%
Gender	Female	266	70.2
	Male	113	29.8
Age	18-20	88	23.2
	21-25	246	64.9
	26-30	24	6.3
	31 years and over	21	5.5
Department/major of study at university	Department of Turkish Language and Literature Education	140	36.9
	Department of Turkish Education	239	63.1
Grade	1st grade	87	23.0
	2nd grade	54	14.2
	3rd grade	70	18.5
	4th grade	168	44.3
Having your computer or tablet	Yes	251	66.2
	No	128	33.8
Having your smartphone	Yes	374	98.7
	No	5	1.3
Social media usage status	Yes	362	95.5
	No	17	4.5
Social media tools used	Instagram	88	57.9
	YouTube	5	3.3
	Facebook	2	1.3
	Twitter	25	16.4
	WhatsApp	15	9.9
	Telegram	13	8.6
	Messenger	4	2.6
Internet browsing time per day	1 hour	26	6.9
	2 hours	163	43.0
	3 hours	131	34.6
	3 hours or more	59	15.6
Purpose of using the Internet	Fun	59	15.6
	Spending free time	79	20.8
	Shopping	3	.8
	Listening/watching video/music etc. applications	100	26.4
	Access to information	91	24.0
	news sites	21	5.5

Variable	Options	n	%
	Other	26	6.9
Family income level	8500 TL	175	46.2
	8500-15000 TL	137	36.1
	15000-25000 TL	46	12.1
	25000 -50000 TL	21	5.5
Taking Instructional Technologies or Information Technologies courses at the undergraduate level	Yes	328	86.5
	No	51	13.5
Taking a Media Literacy course at the undergraduate level	Yes	142	37.5
	No	237	62.5

Candidates for Turkish and Turkish Language and Literature teacher positions include 71.2% female, 29.8% male, 23.2% between the ages of 18 and 20; 64.9% between the ages of 21 and 25; 6.3% between the ages of 26 and 30; and 5.5% between the ages of 31 and. 36.9% the participants are enrolled in the Turkish Language and Literature Education Department, while 63.1% are enrolled in the Turkish Education Department. 44.3% of teacher candidates are in the fourth grade, followed by 14.2% in the second grade, 18.5% in the third grade, and 23% in the first grade. 98.7% of the teacher candidates taking part in the research have cellphones, compared to 66.2% who have laptops or tablets95.5% of the participants utilize social media, with 57.9% of them having an Instagram account. 2 hours a day are spent watching films and listening to music online by 43% of the participants. 46.2% of teacher candidates' families make less than 8500 TL per month, 36.1% make between 8500 and 20,000 TL per month, 12.1% make between 15000 and 25,000 TL per month, and 5.5% make more than 25,000 TL per month. It can be noted that 86.5% of the participants attended a course in instructional or information technologies during their undergraduate studies, while 37.5% took a course in media literacy.

Table 2. The Arithmetic Mean and Standard Deviation of the Screen Reading Self-Efficacy Perception Scale results collected by Turkish and Turkish Language and Literature Teacher Candidate Candidates

	$\overline{X}$	SD
Usefulness	3.55	.48
Understanding	3.50	.51
Managing the Page	3.17	.73
Eye Health	3.76	.71

It was discovered that Turkish and Turkish Language and Literature teacher candidates' arithmetic means for Usability, Comprehension, Managing the Page, and Eye Health were each 3.550.48, 3.500.51, 3.170.73, and 3.760.71, respectively. It is clear from these results, which show that the scale's score range is between 1 and 5, that candidates for the position of Turkish and Turkish Language and Literature instructor fall within the category of "Suitable for me" in all of the subscales of the Screen Reading Self-Efficacy Perception Scale. A comparison of the Screen Reading Self-Efficacy Perception Scale scores of Turkish and Turkish Language and Literature teacher candidates according to their gender is given in Table 3.

Table 3. Self-efficacy Perceptions for Screen Reading Scores of Prospective Teachers by Gender

		N	$\overline{X}$	SD	t	p
Usefulness	Female	266	3.58	.45	1.829	.068
	Male	113	3.48	.54		
Understanding	Female	266	3.54	.48	2.447	.015
	Male	113	3.40	.57		
Managing the Page	Female	266	3.19	.71	.899	.369
	Male	113	3.12	.77		
Eye Health	Female	266	3.78	.69	.817	.414
	Male	113	3.71	.75		

The t values were found to be significant at the p0.05 significance level in terms of the Comprehension dimension scores for Turkish and Turkish Language and Literature teacher candidates, and insignificant at the p>0.05 significance level in terms of the Usability, Page Management, and Eye Health dimension scores. Examining the table reveals that female teacher candidates have mean scores in the Comprehension dimension that are higher than those of male teacher candidates. Therefore, it can be concluded that female teacher candidates perform better than male teacher candidates on the Screen Reading Self-Efficacy Perception Scale's Comprehension dimension.

Table 4. The Results of Teacher Candidates' Screen Reading Self-Efficacy Perception Scores based by Age

		N	$\overline{X}$	SD	KW	p
Usefulness	18-20	88	3.55	.502		
	21-25	246	3.54	.493	1.329	.722
	26-30	24	3.53	.357		
	31 years and over	21	3.62	.391		
Understanding	18-20	88	3.53	.573		
	21-25	246	3.49	.488	4.341	.227
	26-30	24	3.32	.610		
	31 years and over	21	3.60	.309		
Managing the Page	18-20	88	3.20	.707		
	21-25	246	3.15	.744		
	26-30	24	3.19	.701	.920	.821
	31 years and over	21	3.25	.737		
Eye Health	18-20	88	3.76	.732		
	21-25	246	3.77	.700		
	26-30	24	3.50	.730	4.151	.246
	31 years and over	21	3.94	.607		

The Usability, Comprehension, Page Management, and Eye Health dimension scores of Turkish and Turkish Language and Literature teacher candidates according to their ages were all found to be insignificant at the p>0.05

significance level in the Kruskal Wallis H test results. This result demonstrates that there are no differences in the Usability, Comprehension, Page Management, and Eye Health dimension scores between the Turkish and Turkish Language and Literature teacher candidates who took part in the research. Table 5 compares Turkish and Turkish Language and Literature teacher candidates' Screen Reading Self-Efficacy Perception Scale scores based on the university department or majors in which they are enrolled.

Table 5. Teacher Candidates' Screen Reading Self-efficacy Perception Scale Scores based on the Department/Major Science they are studying at the University

		N	$\overline{X}$	SD	t	p
Usefulness	Department of Turkish Education	239	3.55	.489	.093	.926
	Department of Turkish Language and Literature Education	140	3.54	.470		
Understanding	Department of Turkish Education	239	3.47	.518	1.298	.195
	Department of Turkish Language and Literature Education	140	3.54	.497		
Managing the Page	Department of Turkish Education	239	3.22	.741	1.768	.078
	Department of Turkish Language and Literature Education	140	3.08	.706		
Eye Health	Department of Turkish Education	239	3.74	.727	.473	.637
	Department of Turkish Language and Literature Education	140	3.78	.672		

The Usefulness dimension, Comprehension dimension, Page Management dimension, and Eye Health dimension scores of Turkish and Turkish Language and Literature teacher candidates on the Screen Reading Self-Efficacy Perception Scale were all found to be insignificant at the $p>0.05$ significance level, according to the department/main science in which they are enrolled at the university. These results demonstrate that teacher candidates' scores on the Usability, Comprehension, Page Management, and Eye Health dimensions do not alter according to the department or main science they are majoring in at the university. Table 6 compares Turkish and Turkish Language and Literature teacher candidates' Screen Reading Self-Efficacy Perception Scale scores based on the grade level in which they were enrolled.

Table 6. The Results of Turkish and Turkish Language and Literature Teacher Candidates' Scores on the Screen Reading Self-Efficacy Perception Scale based on their Academic Standing

		N	$\overline{X}$	SD	F	p
Usefulness	1st grade	87	3.59	.498	.660	.577
	2nd grade	54	3.60	.469		
	3rd grade	70	3.52	.491		
	4th grade	168	3.52	.474		
Understanding	1st grade	87	3.54	.562	1.031	.379

		N	$\overline{X}$	SD	F	p
	2. grade	54	3.51	.496		
	3rd grade	70	3.40	.481		
	4th grade	168	3.51	.499		
Managing the Page	1st grade	87	3.07	.701		
	2. grade	54	3.16	.805	2.450	.063
	3rd grade	70	3.37	.787		
	4th grade	168	3.14	.685		
Eye Health	1st grade	87	3.84	.694		
	2. grade	54	3.54	.884	2.363	.071
	3rd grade	70	3.82	.633		
	4th grade	168	3.76	.669		

According to the grades of Turkish and Turkish Language and Literature teacher candidates, the results of the ANOVA analysis regarding the scores of the Usability dimension, Comprehension dimension, Page Management dimension, and Eye Health dimension were all found to be insignificant at the $p > 0.05$ significance level. This result demonstrates that, regardless of the grade level at which they are studying, there are no differences in the Usability, Comprehension, Page Management, and Eye Health dimension scores between the Turkish and Turkish Language and Literature teacher candidates who participated in the research. Table 7 compares Turkish and Turkish Language and Literature teacher candidates' Screen Reading Self-Efficacy Perception Scale scores based on whether they were using a computer, tablet, or smartphone.

Table 7. Teacher Candidates' Scores on the Screen Reading Self-Efficacy Scale based on whether they are using a Computer, Tablet, or Smartphone

		N	$\overline{X}$	SD	t	p
Usefulness	Yes	251	3.56	.503	.719	.472
	No	128	3.52	.436		
Understanding	Yes	251	3.51	.505	.956	.340
	No	128	3.46	.521		
Managing the Page	Yes	251	3.20	.749	1.299	.195
	No	128	3.10	.691		
Eye Health	Yes	251	3.78	.704	.886	.376
	No	128	3.71	.711		

Regarding the scores of Turkish and Turkish Language and Literature teacher candidates according to whether they have their computer, tablet, or smartphone, the t values were found to be non-significant at the $p > 0.05$ significance level for the Usability dimension, Comprehension dimension, Page Management dimension, and Eye Health dimension. This result demonstrates that there is no difference in the scores for the Usability, Comprehension, Page Management, and Eye Health dimensions among the Turkish and Turkish Language and

Literature teacher candidates who took part in the research regardless of whether they used a computer, tablet, or smartphone. Table 8 compares the results of Turkish and Turkish Language and Literature teacher candidates' Screen Reading Self-Efficacy Perception Scale scores based on their use of social media platforms. Table 9 compares teacher candidates' results on the Screen Reading Self-Efficacy Perception Scale according to how much time they spend online each day.

Table 8. Teacher Candidates' Ratings on the Screen Reading Self-Efficacy Perception Scale based on how often they utilize Social Media Tools

		N	$\overline{X}$	SD	U	p
Usefulness	Yes	362	3.54	.479	2291.500	.073
	No	17	3.75	.497		
Understanding	Yes	362	3.49	.511	2795.000	.510
	No	17	3.55	.513		
Managing the Page	Yes	362	3.17	.738	2978.000	.821
	No	17	3.22	.552		
Eye Health	Yes	362	3.75	.712	2602.000	.278
	No	17	3.97	.544		

Table 9. Turkish and Turkish Language and Literature Teacher Candidates' Results on the Screen Reading Self-Efficacy Perception Scale based on Daily Internet Usage

		N	$\overline{X}$	S. d	KW	p
Usefulness	1 hour	26	3.47	.609		
	1-3 hours	163	3.58	.451	.731	.866
	3-5 hours	131	3.52	.465		
	5 hours or more	59	3.54	.536		
Understanding	1 hour	26	3.47	.654		
	1-3 hours	163	3.54	.441	2.206	.531
	3-5 hours	131	3.49	.512		
	5 hours or more	59	3.39	.604		
Managing the Page	1 hour	26	3.00	.800		
	1-3 hours	163	3.11	.669	5.040	.169
	3-5 hours	131	3.23	.687		
	5 hours or more	59	3.27	.923		
Eye Health	1 hour	26	3.86	.840		
	1-3 hours	163	3.76	.676	1.684	.640
	3-5 hours	131	3.76	.677		
	5 hours or more	59	3.69	.798		

The Usability dimension, Comprehension dimension, Page Management dimension, and Eye Health dimension

scores of Turkish and Turkish Language and Literature teacher candidates were determined to be non-significant at the 0.05 level of significance for the Kruskal Wallis H test. This finding shows that the results for the Usability, Comprehension, Page Management, and Eye Health dimensions were the same for the teacher candidates for Turkish and Turkish Language and Literature who participated in the study. Based on the average daily quantity of internet browsing, these scores were determined. Table 10 compares Turkish and Turkish Language and Literature teacher candidates' results on the Screen Reading Self-Efficacy Perception Scale based on why they use the Internet.

Table 10. Turkish Language and Literature Teacher Applicants' Ratings on the Screen Reading Self-Efficacy Perception Scale based on why they use the Internet

		N	$\bar{X}$	SD	KW	p
Usefulness	Fun	59	3.51	.552		
	Spending free time	79	3.51	.476		
	Shopping	3	3.39	.822		
	Listening/watching video/music etc. applications	100	3.50	.441	5.909	,433
	Access to information	91	3.63	.484		
	news sites	21	3.56	.374		
	Other	26	3.67	.499		
Understanding	Fun	59	3.41	.608		
	Spending free time	79	3.38	.557		
	Shopping	3	3.44	.385		
	Listening/watching video/music etc. applications	100	3.50	.489	7.866	,248
	Access to information	91	3.60	.469		
	news sites	21	3.63	.364		
	Other	26	3.55	.376		
Managing the Page	Fun	59	3.23	.829		
	Spending free time	79	3.24	.698		
	Shopping	3	2.78	.192		
	Listening/watching video/music etc. applications	100	3.14	.728	5.514	,480
	Access to information	91	3.08	.740		
	news sites	21	3.32	.734		
	Other	26	3.18	.591		
Eye Health	Fun	59	3.72	.767		
	Spending free time	79	3.63	.624	8.248	,221
	Shopping	3	3.33	1.283		

		N	$\overline{X}$	SD	KW	p
Listening/watching video/music etc. applications		100	3.78	.746		
Access to information		91	3.81	.727		
news sites		21	3.87	.546		
Other		26	3.94	.601		

At the p>0.05 significance level, the results of the Kruskal Wallis H test regarding the Usefulness dimension, Comprehension dimension, Page Management dimension, and Eye Health dimension scores of Turkish and Turkish Language and Literature teacher candidates were all found to be insignificant. This result demonstrates that there is no difference in the Usefulness dimension, Comprehension dimension, Page Management dimension, or Eye Health dimension scores between the Turkish and Turkish Language and Literature teacher candidates who took part in the research. Table 11 compares Turkish and Turkish Language and Literature teacher candidates' Screen Reading Self-Efficacy Perception Scale scores based on whether they completed Instructional Technologies or Information Technologies courses during their undergraduate studies.

Table 11. Teacher Candidates' Scores on the Screen Reading Self-Efficacy Perception Scale based on whether they studied Instructional Technologies or Information Technologies during their Undergraduate Studies.

		N	$\overline{X}$	SD	t	p
Usefulness	Yes	328	3.56	.484	1.325	.186
	No	51	3.46	.459		
Understanding	Yes	328	3.49	.505	.109	.914
	No	51	3.50	.551		
Managing the Page	Yes	328	3.16	.745	.345	.730
	No	51	3.20	.633		
Eye Health	Yes	328	3.76	.708	.352	.725
	No	51	3.73	.704		

Regarding the Usefulness dimension, Comprehension dimension, Page Management dimension, and Eye Health dimension scores of Turkish and Turkish Language and Literature teacher candidates, depending on whether they took Instructional Technologies or Information Technologies courses in their undergraduate education, the t values were found to be insignificant at the p>0.05 significance level. This result demonstrates that there is no difference in the Usability dimension, Comprehension dimension, Page Management dimension, or Eye Health dimension scores between the Turkish and Turkish Language and Literature teacher candidates who participated in the research, regardless of whether they took Instructional Technologies or Information Technologies courses during their undergraduate studies.

Table 12 compares Turkish and Turkish Language and Literature teacher candidates' Screen Reading Self-Efficacy Perception Scale scores based on their family's financial level.

Table 12. The Results of Turkish and Turkish Language and Literature Teacher Candidates based on their

Family's Financial Level on the Screen Reading Self-Efficacy Perception Scale

		N	$\overline{X}$	SD	KW	p
Usefulness	8500 TL	175	3.54	.464		
	8500-15000 TL	137	3.57	.440	.284	.963
	15000-25000 TL	46	3.48	.668		
	25000 TL and above	21	3.57	.414		
Understanding	8500 TL	175	3.52	.517		
	8500-15000 TL	137	3.53	.455	5.376	.146
	15000-25000 TL	46	3.44	.613		
	25000 TL and above	21	3.25	.515		
Managing the Page	8500 TL	175	3.15	.741		
	8500-15000 TL	137	3.14	.709	2.815	.421
	15000-25000 TL	46	3.23	.782		
	25000 TL and above	21	3.43	.651		
Eye Health	8500 TL	175	3.75	.712		
	8500-15000 TL	137	3.78	.647	.704	.872
	15000-25000 TL	46	3.75	.876		
	25000 TL and above	21	3.74	.668		

According to their family income level, the scores of Turkish and Turkish Language and Literature teacher candidates on the Usability, Comprehension, Page Management, and Eye Health dimensions of the Kruskal Wallis H test were all found to be insignificant at the p>0.05 significance level. This result demonstrates that there is no difference in the scores for the Usability, Comprehension, Page Management, and Eye Health dimensions among the Turkish and Turkish Language and Literature teacher candidates who participated in the study based on the income level of their families. Table 13 compares the Screen Reading Self-Efficacy Perception Scale results of teacher candidates based on whether or not they have taken undergraduate media literacy courses.

Table 13. Comparison of Self-Efficacy Perception for Screen Reading Teacher Candidates' Scale Scores based on whether they are enrolled in Undergraduate Media Literacy Courses

		N	$\overline{X}$	SD	t	p
Usefulness	Yes	142	3.55	.491	.217	.828
	No	237	3.54	.476		
Understanding	Yes	142	3.45	.524	1.340	.181
	No	237	3.52	.501		
Managing the Page	Yes	142	3.30	.774	**2.670**	**.008**
	No	237	3.09	.694		
Eye Health	Yes	142	3.74	.764	.356	.722
	No	237	3.77	.671		

The t value for the Page Management dimension scores was found to be significant at the p0.05 significance level,

and the t values for the Usability dimension, Comprehension dimension, and Eye Health dimension scores were found to be insignificant at the p>0.05 significance level, according to the status of taking Media Literacy courses at the undergraduate level by Turkish and Turkish Language and Literature teacher candidates. Depending on whether they took Media Literacy courses at the undergraduate level, this finding demonstrates that there is a difference between the Turkish and Turkish Language and Literature teacher candidates who took part in the research in terms of their scores on the Page Management dimension. However, there is no difference between them in terms of their scores on the Usability dimension, Comprehension dimension, Page Management dimension, or Eye Health dimension. When the table is studied, it becomes clear that students who took undergraduate-level media literacy courses performed better on average on the Comprehension dimension than students who did not. As a result, it can be said that teacher candidates who took Media Literacy classes performed higher on the Page Management dimension than those who did not.

Discussion and Conclusion

Today, in a process where information is obtained and produced in parallel with dizzying developments in technology, individuals' reading skills have been subject to change. The reading process begins with pen and paper and continues with books or writing on leather, etc. It has been recorded with printed materials, so today it has found a place in our lives in a much more modern, faster, and usable way on electronic screens (Macit and Demir, 2016a). As a reflection of technological developments, concepts such as reading, speed reading, computer-assisted reading, media literacy screen/electronic reading, and similar concepts have emerged. Providing access to the written word reading on digital media (computer, laptop, tablet, e-book, smartphone) has manifested itself with technology (Ivan, 2014). Technology has become a part of education and the necessity of being intertwined with technology has revealed screen literacy (Duran and Dolaylar-Özkul, 2015).

Screen reading is the act of electronically or digitally reading text displayed through a screen such as a computer monitor. Screen reading is now a necessity due to rapidly developing information technologies (Güneş, 2010). The 21st century has brought about radical changes in people's attitudes towards literacy. (Chauhan and Lal, 2012). The spread of the Internet worldwide since the mid-1990s and advances in screen technology have led to a global increase in screen reading behavior. Screen reading, which is based on performing the act of reading through electronic or digital tools, has brought many different habits, practices, and ways of use to human life. As a result, people of all ages meet the need to obtain information, share, communicate, and communicate through the screen. Research shows that reading electronic texts supports mental development, increases the level of understanding, enriches the meaning with audio-visual elements, provides speed and convenience, strengthens text-reader interaction, provides intertextuality, and activates higher-level thinking skills (Baccino, 2012; Güneş, 2010; Testart Valiant and Bettayeb, 2009; Başaran, 2014, Maden and Maden, 2016).

The following findings were attained from this study, which looked at Turkish and Turkish Language and Literature instructors' opinions toward screen reading. Participants in the study are split 70.2% female and 29.8% male. Furthermore, it was discovered that 44% of the participants were aspiring 4th-grade teachers, 63.1% were Department of Turkish Education students, and around 65% of the participants were between the ages of 21 and

25. It was found that 95.5% of Turkish and Turkish Language and Literature teacher candidates actively use social media, 98.7% have smartphones, and 66.2% have computers or tablets. It was determined that the majority of the participants, 57.9%, use Instagram. Approximately 45% of the participants in the research spend 2 hours a day on the internet. In addition, the majority of participants use the internet for listening/watching videos/music, etc. applications. Computer experience is seen as the main factor that will affect the reader's screen reading behavior and performance. The fact that students have basic computer literacy skills and are familiar with computers has provided them with the advantage of being able to read on the screen without difficulty. (Chou, 2009). Approximately 47% of the participants are from low-income families. Almost all of the Turkish and Turkish Language and Literature teachers took the Instructional Technologies or Information Technologies course during their undergraduate education. This shows that the participants in the research received a qualified education during the education process.

In light of the research's findings, it is evident that female teacher candidates have better screen-reading and comprehension skills than male teacher candidates. In terms of the sub-dimensions of screen reading, namely usefulness, comprehension, page management, and eye health, there was no difference between the teacher candidates participating in the research in terms of their age, the department or major science they studied at the university, and whether they had their computer, tablet, smartphone, or internet usage. No discernible difference was discovered in the reading speeds of the participants in an experimental investigation by Muter & Maurutto (1991) with 24 participants, the majority of whom were university students, between the ages of 19 and 30. In the study examining the reading success and attitudes of the readers according to the situation of reading from the screen and the text, the results generally show that the attitudes of the students are generally in favor of screen reading (Kurniawan & Zaphiris, 2001; Dillon, 1992; Muter & Maurutto, 1991; Noyes & Garland, 2008; Elkıran, 2021). Being able to adjust the font and size while reading on the screen and editing the page according to personal wishes provides advantages for reading. Supporting the content with visuals and making the computer interesting makes reading more fun and facilitates understanding and learning (Demir and Macit, 2016b). In their study, Muter et al. (1988) found no significant difference between reading from the screen and reading from paper in terms of reading a book. As a product of technology that has entered every aspect of life in the 21st century, screen reading has become inevitable for students and out-of-school readers. From now on, screen reading will undoubtedly be used more frequently in schools and reading studies (Baştuğ and Keskin, 2012). Halme (2011) and Liu (2005) stated that people's reading behavior has changed in the last decade and screen-based reading behavior has increased. This result of the research is parallel to the studies in the literature.

Recommendations

- Some recommendations for language teachers, college students, and researchers were made by the study's results.
- Applications can be built for both printed and screen reading in educational settings rather than selecting just one type of reading material.
- Today, families and teachers can be educated about the technology that individuals of all ages, especially young people, use extensively for social media purposes, and training can be given to set an example in

the use of the internet for educational purposes.

- In the research, it was determined that teacher candidates had very little intention of using the Internet to access information. For this reason, the use of the internet can be encouraged to access information, especially in higher education.

- Screen reading digital reading courses can be given in Turkish and Turkish Language and Literature departments to increase students' screen reading purposes and awareness and to raise students' awareness on this subject.

- Effective seminars can be given to academicians in higher education to help students be more productive in internet usage and screen reading lessons.

- This study is limited to Turkish and Turkish Language and Literature teacher candidates. Researchers can conduct similar studies in different departments.

- Future research can focus on reading media preferences and habits among different age groups, education levels, and occupational groups. Such studies can help us better understand the screen reading preferences of certain groups and their attitudes toward other forms of reading.

- The impact of screen reading on the educational process might be further investigated by educators and students. The impact of screen reading on pupils' learning performance and comprehension levels can be studied. Anyone pursuing a career in this industry should work on developing their screen reading abilities.

- Studies based on screen reading skills should not be limited to higher education students only. Researchers can also examine the relationship between students' technology use and reading preferences.

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