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Teachers 'Attitude and Self-Efficacy Perceptions Towards Screen Reading

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Abstract. Today, traditional and screen reading activities are discussed in our country as well as all over the world. In this study, it is aimed to determine the self-efficacy perception and attitude levels of teachers towards screen reading in terms of some demographic variables such as age, gender, professional seniority due to the continuous development of technology today. The study was carried out with the correlational method. "Screen Reading Self-Efficacy Scale (SRSS)" and "Screen Reading Attitude Scale (SRAS)" were applied to teachers as data collection tools. Descriptive statistics, independent samples t-test, ANOVA, Pearson Product Moment correlation analysis and simple linear regression analysis were used in data analysis. As a result of this study, it was determined that teachers' screen reading self-efficacy perceptions were at a good level. As the screen reading attitude levels of teachers were close to the average score obtained from all scale items, it was determined that they were at a medium level. It was found that self-efficacy perception and attitude levels towards screen reading did not differ significantly between female and male teachers, as well as by professional seniority. In addition, while teachers' attitudes towards screen reading differ significantly according to age; screen reading self-efficacy perceptions do not differ significantly according to age. In addition, it was determined that the group with the highest screen reading attitude level was teachers aged 50 and over. Finally, the perception of screen reading self-efficacy was found to be an important and significant predictor of attitude towards screen reading.

Keywords. Screen reading, teacher, attitude, self-efficacy perception.

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Today, reading skill is a field in which the individual has to learn and improve. However traditional and screen book reading activities are discussed in our country, book reading projects are still being developed in order for individuals to acquire a minimal reading culture. On the other hand, depending on the developing technology, screen reading has become acculturation today. While individuals who have acquired the traditional reading culture have difficulties in screen reading depending on their habits, some individuals welcome this process with curiosity and positive. It is claimed that it is superior with its features such as reading from printed sources, paper smell, number of pages and touching actions against screen reading, which we consider as a revolutionary development especially against paper waste. With the integration of information technologies into education, it is possible to talk about a total screen reading culture. As screen reading devices were found in education, this new type of reading has become inevitable.

Reading is defined in the dictionary as "the job of looking at the letters and signs that make up an article and analyzing or vocalizing them" (TDK, 2019). According to the Turkish teaching curriculum, reading is a type of linguistic and cognitive skill. During the reading that takes place in a mental action process, the skills of thinking, comprehension, sorting, classification, questioning, making relationships, analyzing-synthesizing and evaluating develop (MEB, 2019b). Reading is not just the act of vocalization, as can be understood from the definitions. It is also a process that takes place in conjunction with other skills, the most important of which is based on understanding. Therefore, reading for performing more than one skill is the skill of using language in a production-oriented manner.

The act of reading changes depending on the changes that the writing has undergone. The process of reading the text written between electronic circuits in front of the paper and the tools used in previous periods indicates the concept of screen reading. This new type of reading has transformed from the act of reading on paper to reading that is shaped by the approach of accessing data from the screens of devices such as smartphones or computers, scanning and reviewing information. Güneş (2016) said depending on screen reading, the reading style, process, skills and mind structure developed based on paper books have been changing since the invention of writing; Therefore, he stated that everyone should have screen reading skills from now on. According to the computer science teaching curriculum, screen reading is defined as "a process that takes place on online and offline platforms through audio and video tools" (MEB, 2018a). Screen reading, which is the act of reading information through electronic means, differs from traditional reading by the fact that the action is performed on the screen (Odabaş, H., Odabaş, Z. Y., & Sevmez, H., 2018).

According to Maden (2012), we can perform readings on the screen with audio, silent, hint, text / screen reading, summarizing, reviewing, formatting, taking notes, asking questions, criticizing and music-supported readings. Especially when searching for a concept, switching between texts and interacting with the screen, multiple components come into play in screen reading and provide both fast and easy access. In addition, the reading is also divided according to the screen type (Maden, 2012). In this respect, it is also important to realize and apply these components during reading. Reading from the screen requires not only reading skill but also the skill of reading material (Fidan et al., 2013). As a matter of fact, journalist Erin Kelly stated that e-books are not stupid, but e-books are a creative revolution against Arnaud Nourry, the head of Hachette Publishing House, who regards books as stupid (Kelly, 2018).

Eladl & Al Musawi (2020), aiming to investigate students' attitudes towards e-book use in Oman higher education institutions and its relationship with self-efficacy and academic motivation in their study, concluded that students have positive perceptions of e-book use due to the high average value of perception towards e-book use. While there were significant differences in the attitudes of male and female students towards using e-books, no significant difference was found in their self-efficacy by gender.

Soyuçok & Mazman Akar (2018) aimed to examine 211 middle school students and middle school students' attitudes towards screen reading in terms of some variables such as gender, grade level, total number of pages they read, and screen reading purposes in their study. In this study, It was determined that there was only a difference in favour of males at the gender level in students' attitudes towards reading on screen and paper; there was also no differentiation according to the grade level, the total number of pages they read and their screen reading purposes.

Ulu & Zelzele (2018) aimed to examine the distribution and perception of screen reading self-efficacy perceptions of teacher candidates according to gender, grade level, reading material preference, screen reading tool, font type and daily internet usage time. 320 teacher candidates studying in Classroom and Mathematics Teaching Departments has joined this study. There was a significant difference by gender in the comprehension dimension of screen reading self-efficacy perceptions of teacher candidates. In addition, a significant difference was found in the eye health dimension according to the choice of reading material, in the usefulness, comprehension and eye health dimensions according to the screen reading tool preference. A significant difference was also

found in usefulness, managing the page and eye health dimensions according to daily internet usage time.

Rowlands, Nicholas, Jamali & Huntington (2007) aiming to assess academic users' awareness, perceptions and existing levels of use of e-books conducted an online survey through email. 1818 staff and students participated in this study. In the findings of that study, various ways are given to encourage the users' uptake and acceptance of e-books.

Jung, Chan-Olmsted, Park & Kim (2012) aiming to identify the predictors of e-book reader diffusion with regard to consumer awareness, interest, and intention to use in South Korea found that e-book reader awareness, interest, and adoption intention correlated positively with age, education, income, perceived need for print media, digital media ownership, personal innovativeness, and the perceived attributes of e-book readers.

Elkatmış (2018), in his study aiming to get the opinions of 161 primary school teachers about screen reading, concluded that the participants generally considered themselves sufficient in reading on the screen. However, it was revealed that they still preferred to read from printed sources. The dominant opinion is that the positive features of reading through screen reading are to reach information faster. It is another common opinion that it always offers the opportunity to read. In terms of comprehension and reading habits, it is accepted that printed texts are more advantageous.

In Kuru (2018)'s study, which aims to examine primary school teacher candidates' Paper and Screen Reading Skills according to variables such as gender, the availability of a computer, whether they have a smart phone, and the duration of computer mobile phone use, students' skills related to reading on screen and paper, he used screen and printed texts with the same readability level and then interviewed the students. As a result of this study, although there was a significant difference according to gender in the duration of computer and phone use and the level of understanding the texts they read from the screen, there was no difference in other variables. In addition, a significant difference was found in the level of comprehension of printed texts among female teacher candidates who only had a smartphone.

Technology is developing continuously and rapidly. With this development, education is undergoing a transformation again. Studies such as FATİH, EBA and DYNED projects in our country accelerate the transformation of technology supported education. Our study is based on the argument that the determination of attitudes, perceptions and opinions in this field again after the rapid development of technology will contribute to the technology-based transformation of

education. In this context, the purpose of this study is to reveal teachers' self-efficacy perception and attitude levels towards screen reading in terms of some demographic variables. For this purpose, the research aims to find answers to the following sub-problems:

1. What are the teachers' attitudes towards screen reading?

2. Do teachers' attitudes towards screen reading differ significantly according to gender?

3. Do teachers' attitudes towards screen reading differ significantly according to age?

4. Do teachers' attitudes towards screen reading differ significantly according to professional seniority?

5. What are the screen reading self-efficacy perceptions of teachers?

6. Do teachers' screen reading self-efficacy perceptions differ significantly according to gender?

7. Do teachers' screen reading self-efficacy perceptions differ significantly according to age?

8. Do teachers' screen reading self-efficacy perceptions differ significantly according to professional seniority?

9. Is there a significant relationship between teachers' screen reading self-efficacy perceptions and screen reading attitudes?

10. Do teachers' screen reading self-efficacy perceptions significantly predict their screen reading attitudes?

Method

Research Model

In this study, which aims to reveal the relationship between teachers' self-efficacy perception and attitude levels towards screen reading, the correlational model, which is one of the quantitative research designs, was used. Since the correlational model aims to reveal the relationships and connections between variables, beyond just describing situations or events (Büyüköztürk et al., 2016, p.25); this study, which aims to examine teachers' self-efficacy perception and attitude levels towards screen reading according to some demographic variables and to reveal the relationships between them, was carried out according to the correlational model.

Participants

This research was conducted with 148 volunteer teachers working in schools affiliated to the Ministry of National Education. The research group was selected using the appropriate sampling method. In appropriate sampling, the sample is selected from easily accessible and practicable units due to the limitations in terms of time, money and labor (Büyüköztürk, 2012). In this study, teachers voluntarily participated in the research on the principle of volunteering through online survey.

Table 1.

Personal Information of the Participants

		n	f	%
Gender	Female	59		39.9
	Male	89		60.1
Age	20-29		29	19.6
	30-39		71	48.0
	40-49		33	22.3
	50 and over		15	10.1
Professional Seniority	0-10 years		71	48.0
	11-20 years		52	35.1
	21-30 years		20	13.5
	31 years and over		5	3.4

The demographic characteristics of the teachers participating in the study are given in Table 1. The study group of the research consists of 148 teachers working in schools affiliated to the Ministry of National Education in the 2019-2020 academic year. 59 (39.9%) of these teachers are female and 89 (60.1%) are male. 29 (19.6%) of the teachers in the study group are in the 20-29 age range, 71 (48%) are in the 30-39 age range, 33 (22.3%) are in the 40-49 age range, and 15 (10.1%) are 50 years old and over. 71 (48%) of the teachers have worked for 0-10 years, 52 (35.1%) worked for 11-20 years, 20 (13.5%) worked for 21-30 years and 5 (3.4%) worked for 31 years and over.

Data Collection Tools

The data collection tool of the research consists of three parts. In this study, the Personal Information Form was used to determine the demographic information of the teachers. Screen Reading Self-Efficacy Scale (SRSS) developed by Ulu (2018) was used to measure teachers' perception of self-efficacy towards screen reading. In order to measure teachers' attitudes towards screen reading, Screen Reading Attitude Scale (SRAS) developed by Güneş & Susar Kırmızı (2014) was used.

Personal information form. This form has been prepared in order to get information about the gender, age and professional seniority of the teachers.

Screen reading self-efficacy scale. Screen Reading Self-Efficacy Scale (SRSS) developed by Ulu (2018) was used in this study to measure teachers' self-efficacy for screen reading. This scale consists of 16 items and 4 sub-dimensions: Usability, Understanding, Managing the Page and Eye Health. It explains 53.07% of the total variance. The factor loads of the items in the scale vary between 85 and .45. The Cronbach Alpha coefficient for the whole scale was found to be .76. The Cronbach Alpha value is .77 for the first sub-dimension; .71 is for the second subdimension; .66 is for the third sub-dimension; It was calculated as .75 for the fourth sub-dimension and .76 for the whole scale. According to the results of the confirmatory factor analysis (CFA), it was seen that the fit indexes of the model were sufficient with the structure of the scale consisting of four factors. (χ^2 / df = 1.26, RMSEA = .023, GFI = .93, AGFI = .92, CFI = .98 and NFI = .90) EFA and DFA were applied to the same sample group. The Cronbach Alpha value of the first sub-dimension of this research was calculated as .46; .56 is for the second subdimension; .45 is for the third subdimension, .54 is for the fourth sub-dimension and .73 is for the whole scale. The high total score obtained from the Screen Reading Self-Efficacy Scale indicates that teachers' perceptions of screen reading self-efficacy are positive; low level reveals that screen reading self-efficacy perceptions are negative.

Screen reading attitude scale. In order to measure teachers' attitudes towards screen reading, the Screen Reading Attitude Scale (SRAS) developed by Güneş & Susar Kırmızı (2014) was used. This scale consists of 26 items and "positive characteristics and differences" sub-dimensions. Explanatory Factor Analysis (EFA) was applied to the data obtained by applying to 536 people in total, and it was found that it was a 26-item scale consisting of two sub-dimensions, "positive characteristics" and "difference". Factor load values for the first sub-dimension vary between 0.76 and 0.53, while factor load values for the second sub-dimension range between 0.72 and 0.58. Cronbach Alpha reliability coefficient of the whole scale is 0,91; 0.85 is for the first sub-dimension; 0.78 is for the second sub dimension. In this study, the Cronbach Alpha reliability coefficient of the whole scale was .94; 0,92 was for the first sub-dimension; 0.88 was for the second sub-dimension.

Data Analysis

SPSS 22.0 program was used to analyse the data and a significance level of .000 was used. First of all, preliminary analyses were made. The normality test was conducted by looking at the skewness and kurtosis values of the data. Descriptive statistics consisting of arithmetic mean, standard deviation, and frequency values were examined. After meeting the normality assumption, firstly, in order to determine whether the attitudes towards screen reading and perceptions of self-efficacy differ according to gender, independent samples t-test from the difference tests were used as the; ANOVA difference test was used to determine whether the perceptions of attitudes towards screen reading and self-efficacy differ according to age and professional seniority. In addition, when determining the source and direction of the difference, the Tukey test was used because it was determined that the variances were homogeneously distributed. Then, to determine the relationship between attitude towards screen reading and perception of self-efficacy, Pearson Product Moment Correlation analysis was applied, and finally, to reveal the predictive power of attitude towards screen reading on self-efficacy perceptions, simple linear regression analysis was applied.

Results

For the normality test of the data, kurtosis and skewness values were examined. Looking at the skewness values; while the attitude towards screen reading was found to be -.087 and the perception of self-efficacy towards screen reading was .015. When the kurtosis values were examined; It was found that the attitude towards screen reading was .413 and the perception of self-efficacy towards screen reading was .1253. These values are shown in Table 2.

Table 2.

Kurtosis and Skewness Values

Variables	Skewness	Kurtosis
SRA	-.087	.413
SRSP	.015	1.253

Notes: SRA: Screen Reading Attitude; SRSP: Screen Reading Self-Efficacy Perception

Kurtosis and skewness values of Screen Reading Attitude and Screen Reading Self-Efficacy Perception are given in Table 2. These values reveal that the data show a normal distribution in the context of Tabachnick & Fidell (2007) criteria.

Table 3.

Descriptive Statistics of Screen Reading Attitude

Variable	Min	Max	$\bar{X}$	SS
SRA	26	127	71.26	17.38

Note: SRA: Screen Reading Attitude

The first research question of the study is "What are the screen reading attitudes of teachers?. As shown in Table 3, it is seen that teachers have screen reading attitudes at a medium level ($\bar{X}$: 71.26).

Table 4.

Independent Samples t-Test Findings of Screen Reading Attitude According to Gender

Dependent Variable	Gender	n	$\bar{X}$	SS	t	*p*
SRA	Kadın	59	72.27	16.86	.57	.56
	Erkek	89	70.60	17.78		

Notes: **p<0.01; *p<0.05; SRA: Screen Reading Attitude

The second research question of the study is predetermined as "Do teachers' attitudes towards screen reading differ significantly according to gender?". As seen in Table 4, their screen reading attitudes do not differ significantly in terms of gender (p> .05).

Table 5.

ANOVA Findings of Screen Reading Attitude according to Age

Variable	Age	n	$\bar{X}$	SS	F	*p*
SRA	20 - 29	29	76.41	15.80	4.98	.003*
	30 - 39	71	68.32	16.36		
	40 - 49	33	67.42	16.67		
	50	15	83.67	19.87		

Notes: **p<0.01; *p<0.05; SRA: Screen Reading Attitude

The third research question of the study is “Do teachers' screen reading attitudes differ significantly according to age? As can be observed in Table 5 above, teachers' screen reading attitudes differ significantly according to age (p <.05). Post Hoc tests were applied to find the direction and source of the difference. The levene test was applied to decide which of the post hoc tests to apply for the homogeneity of the variances. As a result of the Levene test, it was revealed that the variances were homogeneously distributed. For this reason, Tukey test was applied. Table 6 illustrates the Tukey test findings.

Table 6.

Tukey Test Findings

(I) age	(J) age	Mean Differences (I-J)	SE	*p*
20-29	30-39	8.09	3.68	.12
	40-49	8.99	4.25	.15
	50 and over	-7.25	5.31	.52
30-39	20-29	-8.09	3.68	.12
	40-49	.90	3.52	.99
	50 and over	-15.34	4.75	.008*
40-49	20-29	-8.99	4.25	.15
	30-39	-.90	3.52	.99
	50 and over	-16.24	5.20	.012**
50 and over	20-29	7.25	5.31	.52
	30-39	15.34	4.75	.008*
	40-49	16.24	5.20	.012**

Notes: **p<0.01; *p<0.05

According to the Tukey test findings shown in Table 6; Screen reading attitudes differ significantly between teachers aged 50 and over and those aged 30-39 (p <.05). Teachers aged 50 and over ($\overline{X}$:83.67) have higher screen reading attitudes than teachers aged 30-39 ($\overline{X}$:68.32). In addition, screen reading attitudes differ significantly between teachers aged 50 and over and those between the ages of 40-49 (p <.05). Teachers aged 50 and over ($\overline{X}$:83.67) have higher screen reading attitudes than teachers aged 40-49 ($\overline{X}$:67.42).

Table 7.

ANOVA Findings of Screen Reading Attitude according to Professional Seniority

Variable	Professional Seniority	n	$\bar{X}$	SS	F	*p*
SRA	0 – 10 years	71	71.25	16.55	2.47	.064*
	11 – 20 years	52	69.67	17.00		
	21 – 30 years	20	70.40	18.23		
	31 years and over	5	91.40	22.34		

Notes: **p<0.01; *p<0.05; SRA: Screen Reading Attitude

The fourth research question of the study is "Do teachers' attitudes towards screen reading differ significantly according to their professional seniority?. As presented in Table 7, teachers' screen reading attitudes do not differ significantly according to professional seniority (p <.05).

Table 8.

Descriptive Statistics of Screen Reading Self-Efficacy Perception

Variable	Min	Max	$\bar{X}$	SS
SRSP	32	79	54.59	6.62

Note: SRSP: Screen Reading Self-Efficacy Perception

The fifth research question of the study is "What are the screen reading self-efficacy perceptions of teachers?. As shown in Table 8, it is seen that teachers have screen reading self-efficacy perceptions at a medium level ($\bar{X}$:54.59).

Table 9.

Independent Samples t-Test Findings of Teachers' Screen Reading Self-Efficacy Perceptions According to Gender

Dependent Variable	Gender	n	$\bar{X}$	SS	t	*p*
SRSP	Female	59	54.97	5.92	.55	.58
	Male	89	54.35	7.06		

Note: SRSP: Screen Reading Self-Efficacy Perception

The sixth research question of the study is determined as “Do teachers' screen reading self-efficacy perceptions differ significantly according to gender?”. As can be observed in Table 9 above, screen reading self-efficacy perceptions do not show a significant difference in terms of gender (p> .05).

Table 10.

ANOVA Findings of Screen Reading Self-Efficacy Perception according to Age

Variable	age	n	$\bar{X}$	SS	F	*p*
SRSP	20 - 29	29	55.86	7.45	.66	.57*
	30 - 39	71	54.04	5.94		
	40 - 49	33	54.21	6.34		
	50 and over	15	55.60	8.60		

Notes: **p<0.01; *p<0.05; SRSP: Screen Reading Self-Efficacy Perception

The seventh research question of the study is “Does screen reading self-efficacy perception of teachers differs significantly according to age? As presented in Table 10, teachers' screen reading self-efficacy perception does not significantly differ according to age (p <.05).

Table 11.

ANOVA Findings of Screen Reading Self-Efficacy Perception according to Professional Seniority

Variable	Professional Seniority	n	$\bar{X}$	SS	F	*p*
SRSP	0 – 10 years	71	71.25	16.55	2.47	.064*
	11 – 20 years	52	69.67	17.00		
	21 – 30 years	20	70.40	18.23		
	31 years and over	5	91.40	22.34		

Notes: **p<0.01; *p<0.05; SRSP: Screen Reading Self-Efficacy Perception

The eighth research question of the study is “Do teachers' screen reading self-efficacy perceptions differ significantly according to professional seniority? As can be observed in Table 11, screen reading self-efficacy perceptions of teachers do not differ significantly according to professional seniority (p <.05).

Table 12.

Pearson Product Moment Correlation Analysis Findings

Variable	**SRSP**
SRA	.54**

Notes: **p<0.01; *p<0.05; SRA: Screen Reading Attitude; SRSP: Screen Reading Self-Efficacy Perception

The ninth research question of the study is determined as "Is there a significant relationship between teachers' screen reading self-efficacy perceptions and screen reading attitudes?". In Table 12, it is seen that there is a moderate, significant and positive relationship between screen reading self-efficacy perception and their screen reading attitudes (r = .54, p <.01).

Table 13.

Simple Linear Regression Analysis Findings

Independent Variable	**B**	**SH**	**β**	**t**	***p***
Constant	39.81	1.93		20.53	.00
SRSP	.20	.06	.54**	7.84	.00
N=148, R=.54, R^2= .29, F=61.57, p< .01**, p<.05*					

Note: SRSP: Screen Reading Self-Efficacy Perception

The tenth research question of the study is "Do teachers' screen reading self-efficacy perceptions significantly predict their screen reading attitudes?". As presented in Table 13, a significant relationship was found between the screen reading self-efficacy perception of teachers and their screen reading attitudes [R=.54, R2=.29, F=61.57, p<.01]. The t test result regarding the significance of the regression coefficient shows that screen reading attitude (β: .54; t: 7.84) is an important and significant predictor of screen reading self-efficacy (p <.01). Moreover, screen reading attitude explains approximately 29% of the assumption of screen reading self-efficacy perception.

Discussion and Conclusion

In this study, it was aimed to examine teachers' perception of self-efficacy and attitude levels towards screen reading in terms of some demographic variables. It is expected that determination of perception and attitude levels towards screen reading will guide future studies on screen reading. In this context, in this study, it was determined that the screen reading attitudes of teachers were at a moderate level ($\bar{X}$:71.26), as they were close to the average score (65) to be obtained from all scale

items. In addition, it was determined that teachers' perception of screen reading self-efficacy was at a good level ($\overline{X}$:54.59). In this study, it was found that the perception of self-efficacy and attitude levels towards screen reading did not differ significantly between male and female teachers. In addition, while teachers' attitudes towards screen reading differ significantly according to age; screen reading self-efficacy perceptions do not differ significantly by age. Teachers' perception of screen reading self-efficacy and their attitudes towards screen reading do not differ significantly according to professional seniority. It was also found that there is significant and positive relationship between teachers' screen reading self-efficacy perception and their screen reading attitudes. In addition, screen reading self-efficacy perception was found to be an important and significant predictor of attitude towards screen reading.

Teachers' perception of screen reading self-efficacy was at a good level ($\overline{X}$:54.59). Teachers' screen reading self-efficacy perceptions do not differ significantly according to professional seniority and age. This finding is in line with some researches in the literature (Maden & Maden, 2016; Eladl & Musawi, 2020; Elkatmış, 2018). In the study conducted by Maden & Maden (2016) with secondary school students, screen reading self-efficacy perceptions were determined as medium level. The study of Eladl & Al Musawi (2020) concluding that students have positive perceptions of e-book use due to the high average value of perception towards e-book use confirms this finding. This finding is also compatible with the study of Elkatmış (2018), in which aiming to get the opinions of primary school teachers about screen reading. He concluded that the primary school teachers participating in the study generally considered themselves sufficient in screen reading. However, it was revealed that they still preferred to read from printed sources. They think screen reading is advantageous to provide reaching information faster. On the other hand, it was found that printed texts are more advantageous in terms of comprehension and reading habits,.

Among the findings of this study, teachers' attitudes towards screen reading do not differ significantly in terms of gender. This finding contradicts with the studies of Soyuçok & Mazman Akar (2018) aiming to examine middle school students' attitudes towards screen reading in terms of some variables. This study revealed that boys have a more positive attitude towards screen reading than girls. It is also incompatible with the study in which Eladl & Al Musawi (2020) found significant differences in male and female students' attitudes towards screen reading.

Teachers' perception of self-efficacy towards screen reading does not differ significantly according to gender. Eladl & Al Musawi (2020) didn't find any significant difference in the self-

efficacy of male and female students for using e-books by gender. In addition, there are also studies in the literature that contradict this finding (Rowlands, I., Nicholas, D., Jamali, H. R. & Huntington, P., 2007; Ulu & Zelzele, 2018). Rowlands, Nicholas, Jamali & Huntington (2007) found a significant difference in men's attitudes towards screen reading. This study contradicts the study of Ulu & Zelzele (2018) examining teacher candidates' screen reading self-efficacy perceptions. In the study, a significant difference was found in favor of female students in the comprehension dimension of teacher candidates. While there was no significant difference by gender in usability, managing the page and eye health sub-dimensions; in the dimension of managing the page, it was found that the mean rank scores of male students were higher.

One of the findings of this research is that teachers' attitudes towards screen reading differ significantly according to age. Teachers aged 50 and over have higher screen reading attitudes than teachers aged 30-39. Also, teachers aged 50 and over have higher screen reading attitudes than teachers aged 40-49. On the contrary of this finding, in the study of Jung, Chan-Olmsted, Park & Kim (2012), it was found that younger consumers were more likely to be aware of the new media device e-book readers. In addition, screen reading self-efficacy perceptions do not differ significantly by age in the current study. Similarly, Zhang & Kudva (2014) found as age increased, a person was less likely to adopt e-books.

Grounded on the final research questions of the current study, it was found that there is significant and positive relationship between teachers' screen reading self-efficacy perception and their screen reading attitudes. In addition, screen reading self-efficacy perception was found to be an important and significant predictor of attitude towards screen reading. Since teachers' screen reading self-efficacy perceptions and attitudes towards screen reading are at a good level, these two variables have a significant and positive relationship and its prediction is compatible with the literature.

Recommendations

Some suggestions can be given in the light of the findings of this research. First of all, in-service training seminars can be organized to increase the screen reading awareness of teachers. Second, for pre-service teachers, courses or seminars can be added to the curriculum. Thirdly, teachers' reading comprehension skills can be examined according to their screen reading and reading from a printed book. Finally, to examine screen reading attitudes and self-efficacy perceptions in more depth, a qualitative research can be conducted.

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Conflict of Interest

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