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RESEARCH ARTICLE

Digital Reading and Writing Disposition of Primary School Teachers

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ARTICLE INFO	ABSTRACT
  *Corresponding Author nurhanakts@gmail.com	The aim of this study is to examine the digital reading and writing tendencies of classroom teachers. A basic qualitative research design was used in the study. The study group consisted of 15 classroom teachers working in public and private primary schools in different provinces of Turkey. Two different semi-structured interview forms prepared by the researchers were used to determine the digital reading and writing tendencies of the teachers. The data obtained were analyzed using content analysis technique. As a result of the research, five different themes were reached as 'advantages', 'disadvantages', 'gaining skills', 'reasons for preference' and 'reader/writer profile' regarding digital reading and writing tendency. Classroom teachers stated that digital reading and writing offer instructional, professional and perceptual contributions as advantages, while digital writing provides personal development and facilitates the writing process. On the other hand, it was stated that digital reading has some disadvantages in cognitive, emotional and instructional terms, and digital writing increases the error rate in writing and weakens writing skills as other disadvantages. Teachers stated that both traditional and digital methods are effective in terms of gaining reading and writing skills, and sometimes both should be used together. Among the reasons for preferring digital reading and writing are ease of use, necessity, and economy, easy recognition of errors and dislike of traditional methods. In terms of reader/writer profile, it was seen that the digital reader/writer profile of the teachers came to the fore, but there were also teachers who had both traditional and both.

INTRODUCTION

The act of reading and writing, which is one of the important indicators of the level of development of societies, has changed dramatically due to the development of information and communication technologies and the widespread use of the Internet. Accordingly, the definition and scope of literacy has expanded, and different types of literacy have started to appear in the literature. This transformation has not only changed our reading and writing habits, but also profoundly affected the ways we access and use information and participate in public life (Coiro et al., 2008). In this context, the innovations brought by the digital age have reshaped the ways in which individuals access information and how they process this information. In particular, as traditional reading and writing practices have been replaced by new forms on digital platforms, the impact of this transformation on the ways we access and use information has been inevitable.

In recent years, with the rapid developments in information and communication technologies, the concepts of digital reading and writing have become increasingly important and 'digital literacy' has become a part of literature. The concept of digital literacy was first used in Paul Gilster's book *Digital Literacy* published in 1997 (Pangrazio et al., 2020). Gilster (1997) defines digital literacy as 'the ability to understand and use information from a wide variety of sources presented through computers in multiple formats'. This skill includes the ability of individuals to access, manage, integrate, evaluate, analyse and produce new information using digital tools (Martin and Grudziecki, 2006). Therefore, having digital literacy involves more than the ability to use software or operate a

digital device. It requires users to have a wide range of complex cognitive, motoric and emotional skills to use digital environments effectively (Alkali and Amichai-Hamburger, 2004). In this context, individuals are expected to have competences in the dimensions of digital reading and digital writing in order to reach the level of digital literacy.

One of the 21st century's new trends has been the gradual change in individuals' reading habits. In the early 2010s, there was a migration from traditional print media reading to e-reading on mobile devices. The widespread use of the Internet at the global level and the use of various reading materials, especially hypertext and hypermedia resources, have led to a radical change in different forms of reading in addition to printed text materials. Information technology and the conveniences it provides have changed human life and led to deviations in reading quality and reading habits (Shimray et al., 2015). With the increase in the amount of digital information and the increase in the time people spend reading electronic media, digital environments have started to affect people's reading behaviour (Liu, 2012). Digital reading is defined in different ways: 'reading involving hypermedia technology' (Singer and Alexander, 2017), "reading on a digital screen" (Baron, 2017), and "the ability to select, process, and use information from multiple information sources" (Braasch et al., 2018). This diversity shows that digital reading is a multi-layered and dynamic process unlike traditional forms of reading.

As digital environments have transformed reading habits, they have also radically changed writing habits. Individuals have turned to digital tools instead of paper and pen to share their feelings, thoughts and suggestions; digital writing tools such as computers, tablets and mobile phones have started to replace handwriting. Digital writing, which constitutes an important dimension of digital literacy, covers the production process of texts created with a computer, smartphone or similar digital device and intended to be displayed (Nordquist, 2018). While the widespread use of digital writing reshapes the way individuals communicate and share information, there is a strong interaction between digital reading and this writing practice. In particular, the increasing use of digital technologies in education, business and social life has accelerated the transfer of reading and writing processes to digital environments. Therefore, digital reading and writing is now emerging as an alternative to traditional reading and writing habits. In this context, with the integration of digital technologies into daily life, digital reading and writing trends are increasingly attracting attention.

Digital reading tendency means that individuals prefer to read on digital platforms instead of traditional printed materials. This trend increases with the rapid development of digital technologies and their penetration into all areas of daily life. According to Baron (2017), digital reading has gained momentum, especially with the widespread use of mobile devices, and readers have started to prefer reading on digital screens more. A similar situation has been experienced for digital writing, and the tendency of digital writing, which is called the habit of individuals to write using digital tools instead of paper and pen, has increased as a necessity of the age. The increase in digital writing tendency has enabled individuals to share their thoughts more quickly and effectively, especially through social media, blogs and online platforms. These trends, which come to the forefront in education as well as social life, have enabled the course materials to be shaped around digital technologies by moving away from traditionalism in today's changing classrooms (Özerbaş and Kuralbayeva, 2018). As laptops, smartphones, tablets and e-readers spread into the field of education and learning, reading and writing are increasingly taking place with digital screen-based technologies rather than analogue technologies such as pen and paper (Mangen, 2016).

Students' gaining a digital identity and growing up as digitally literate individuals largely depends on the guidance of teachers. However, in order for this process to be successful, it is necessary to train teachers who have a good command of digital skills and are equipped with these qualities. In this context, the competences that teachers should possess have been determined. The International Society for Technology in Education (ISTE, 2017) emphasises that teachers' having technological literacy, integrating technology into their lessons, guiding students to use technology, organising the learning environment according to technological innovations and collaborating with colleagues through technological networks are among the basic skills of teachers.

In order for teachers to adapt to today's conditions, to respond effectively to the needs of their students and to integrate digital technologies into the education and training process, it is important

to determine and investigate their tendencies in digital reading and digital writing. As a matter of fact, the digital transformation in education in the last 20 years has brought along many new studies and approaches, and digital reading and writing has been the focus of many studies. When the studies in the literature on digital reading and writing are examined; the views of teachers and pre-service teachers on digital reading and writing (Hutchison and Reinking, 2011; Larson, 2012; Pierczynski, 2015; Ustabulut, 2021), digital literacy competency levels of classroom teachers are determined (Aksoy et al; Arslan, 2019; Korkmaz, 2020; Kaya Özgül, et al., 2023) and studies examining pre-service teachers' attitudes, habits and tendencies towards digital reading and writing (Bozgun and Can, 2022; Elkıran, 2021; Karim and Hasan, 2007; Maden, 2018; Yamaç, 2019). For example, Elkıran (2021) examined the relationship between pre-service teachers' digital writing attitudes and digital reading tendencies. As a result of the research, it was determined that pre-service teachers' digital writing attitudes and digital reading tendencies were high and there was a positive relationship between these two variables. Based on this result, it was stated that the positive and negative aspects of reading and writing in digital tools should be investigated in depth in order to ensure digital transformation and trends. As a result of another study (Maden, 2018) in which the digital reading habits of pre-service teachers were examined, it was emphasised that the attitudes of the candidates towards digital texts were related to their general reading habits and that digital reading should be supported more in the education process. Ustabulut (2021) examined Turkish teachers' attitudes towards digital writing skills, how they evaluate these skills, and to what extent they use digital writing in their education processes. The results show that digital writing should find more place in teaching processes and teachers need more training and resources in this regard.

The aforementioned studies address the views, attitudes and proficiency levels of pre-service teachers and classroom teachers towards digital reading and writing skills; however, studies that examine classroom teachers' dispositions towards these skills in depth are limited. In particular, the lack of studies that comprehensively investigate the effect of dispositions towards digital reading and writing skills on the professional development process of classroom teachers draws attention. In this context, the present study aims to fill this gap in literature and make an important contribution to the field. From this point of view, the aim of the study is to examine the digital reading and writing tendencies of classroom teachers. Within the scope of this purpose, the study sought to answer the question 'How are the digital reading and digital writing tendencies of classroom teachers?'

MATERIALS AND METHODS

In this study, basic qualitative research methods were used. "Basic qualitative research is concerned with how people interpret their lives, how they construct their world, and what meaning they give to their experiences. The aim here is to describe how people understand their lives and experiences' (Merriam, 2018, p.23). In this study, basic qualitative research method was used to determine how classroom teachers make sense of digital reading and writing experiences.

Participants

The study group of the research consists of 15 classroom teachers working in public and private primary schools in different provinces of Turkey in the autumn term of the 2023-2024 academic year. The convenience sampling method was used in the selection of participants. In order to see the reflection of digital reading and writing tendencies in the education process, it was paid attention that classroom teachers had at least two years of teaching experience. At the same time, in order to see how the education level of teachers shapes digital reading and writing dispositions, it was tried to reach classroom teachers graduated from all levels (bachelor's, master's, doctorate). The data related to the study group are given in Table 1:

Table 1: Data on the characteristics of the participants

Participants	The province where they work	Professional experience	School Type	Education level	Digital Competence Status
T1	Kayseri	6-10 years	Public	Master's degree	3 (enough)
T2	İzmir	11-15 years	Public	Master's degree	3 (enough)

T3	Konya	1-5 years	Public	Master's degree	3 (enough)
T4	Nigde	11-15 years	Public	Master's degree	4(very good)
T5	Gaziantep	11-15 years	Public	Bachelor's	3 (enough)
T6	Gaziantep	16-20 years	Public	PhD	3 (enough)
T7	Ankara	6-10 years	Private	Master's degree	3 (enough)
T8	İzmir	11-15 years	Public	Bachelor's	3 (enough)
T9	İstanbul	6-10 years	Private	Bachelor's	3 (enough)
T10	Konya	21-25 years	Public	PhD	3 (enough)
T11	Ankara	16-20 years	Public	PhD	3 (enough)
T12	Sanliurfa	6-10 years	Public	PhD	3 (enough)
T13	Ankara	16-20 years	Private	Bachelor's	3 (enough)
T14	Gaziantep	1-5 years	Public	Bachelor's	3 (enough)
T15	Konya	16-29 years	Public	PhD	3 (enough)

According to Table 1, the majority of the teachers have 11-15 years of professional experience. Three of the teachers work in private schools and 12 of them work in public primary schools affiliated to the Ministry of National Education. Five of the teachers participating in the study have a doctorate degree, five have a master's degree and the rest have a bachelor's degree. All of the teachers stated that they have digital competences.

Data collection tool

In the study, two separate structured interview forms designed by the researchers to determine digital reading and writing tendencies were used as data collection tools. After the draft interview questions were prepared, the opinions of three academicians who experts in the field of classroom education were taken.

After the expert opinions, the questions were finalized. There are 15 questions related to digital reading and writing. In order to test the comprehensibility of the interview questions, an interview was conducted with a classroom teacher before the actual implementation. As a result of the interview, some questions were shortened, and some questions were modified and reduced to 13 questions. Then the actual data collection process started. The interview questions included questions about teachers' personal information and their thoughts and experiences about digital reading and writing. Regarding digital reading, the focus was on teachers' attitudes, the situations in which they prefer digital reading, the tools used, and how much digital reading they include in their daily routines. Similar issues were emphasized in digital writing. Some examples of the interview questions are given below:

- *Do you like digital reading? What are the emotions you feel while reading?*
- *Which types of texts do you prefer to read digitally? Why?*
- *How does digital reading affect the way you live/teach?*
- *Which type of writing (traditional/digital) do you prefer more when writing and why?*
- *Approximately how much time do you spend on digital writing per day?*
- *What would you say about the conveniences of digital writing?*

Data collection

The data were collected in the 2023-2024 academic year. The research data were collected on a voluntary basis. The interviews with the teachers lasted 1 hour in total for both interview forms. Since the participants worked in different cities, the interviews were conducted through the ZOOM program, and it was shared that audio recordings would be taken. In the research data, the participants' information was kept confidential and coded as T1, T2, T3.

Data analysis

Content analysis technique was used to analyze the research data. In content analysis, data are coded by collecting them in small information labels, the codes obtained are brought together to form a common idea and themes are created, and then the data are interpreted around the themes created

(Creswell, 2016). The research data were analyzed separately by both researchers. Then, the researchers came together to compare the harmony of the categories created and the parts where there was disagreement were reviewed. After consensus was reached, the categories were finalized. The reliability of the study was calculated using the formula Reliability = Consensus / (Consensus + Disagreement) and it was seen that reliability was achieved with 90% agreement (Miles and Huberman, 1994). The themes and categories were reviewed again and presented to two academicians who are experts in the field and the themes and categories were finalized by making the necessary corrections by taking these opinions into consideration.

Validity and reliability

In order to ensure the validity of the study, transferability and detailed description methods were preferred. To ensure reliability, the principles of consistency and verifiability were followed. The participants participated in the study completely voluntarily. During the interviews, personal comments and evaluations were avoided and only an objective approach was adopted. After the data were coded, they were submitted to the review of two academicians who are experts in the field of classroom education. The statements of the participants were included in the study as direct quotations.

FINDINGS

Classroom teachers' dispositions towards digital reading and digital writing were grouped under some headings as a result of the analysis of their answers to the interview questions. Digital reading and digital writing tendencies were combined under five common themes.

These themes are

1. Advantages
2. Disadvantages
3. Gaining skills (reading/writing)
4. Reasons for preference (reading/writing purposes)
5. reader/writer profile

In the advantages theme, "instructional contribution" and "professional contribution" are common to both groups, "perceptual contribution" and "affordability" are discussed under digital reading skill, and "personal development" and "facilitation" categories are discussed under digital writing skill. As for the disadvantages theme, the categories of "cognitive disadvantages", "emotional disadvantages" and "instructional disadvantages" were grouped under digital reading skills, while the categories of "weakening writing skills", "increasing the amount of errors" and "difficult access" were grouped under digital writing skills. Under the theme of gaining skills, there are three categories for both digital reading and digital writing: "traditional", "digital", and "both". In the theme of reasons for preference, "ease of use" is a common category for digital reading and digital writing, while "necessity" and "affordability" are categories for digital reading, and "ease of noticing errors" and "not liking traditional writing" are categories for digital writing. Finally, in the reader/writer profile theme, three categories, "traditional", "digital" and "both", were elaborated for both digital reading and digital writing. A holistic picture of the themes and categories is shown in Figure 1.

Figure 1: Themes and categories related to digital reading and digital writing tendencies

The interviews on the digital reading and digital writing tendencies of classroom teachers were analyzed separately, but the results were gathered under a single heading due to the similarity of the findings.

Theme 1: Advantages

Teachers' digital reading and writing tendencies are classified under various categories under the theme of advantages. Both digital reading and digital writing practices are evaluated under two common categories: instructional contribution and professional contribution. Among the categories specific to the digital reading process, the perceptual contribution and the economic category stand out. For digital writing tendency, categories such as personal development and facilitation stand out.
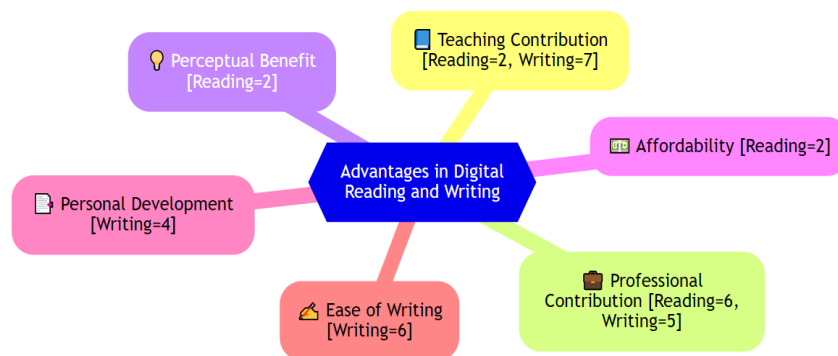

Figure 2: Categories related to the theme of advantages

Category 1: Instructional contribution

According to the teachers, digital reading and writing processes offer various instructional contributions. Teachers (N=2) emphasized that digital reading facilitates information and keeping up with current studies, while digital writing (N=7) offers an environment that allows students to learn writing rules and language skills and that students can be interested in. In addition, teachers also state that advantages such as multidimensional interaction (e.g. coloring), time saving and quick correction of errors are among the instructional contributions of these processes. Sample excerpts from the teachers' views are given below:

"It contributes a lot in a positive sense, I mean, it contributes in terms of creativity, for example, you can see what people on the other side of the world are doing and you can shape your lessons accordingly. It contributes in that sense, you can follow current developments." (T7- Private School/Ankara)

"Both easy to use and save time. Editing, compiling, collecting is easier, you can diversify more, you can color, etc. the advantages are many, it is a multifaceted, multidimensional job, that is, writing and editing something in a digital environment." (T13- Private School / Ankara)

Category 2: Professional contribution

Teachers state that digital reading (N=6) and digital writing (N=5) processes make significant professional contributions. Digital reading facilitates teachers' work with functions such as copy-paste, sharing texts via e-mail and delivering classroom work to students. Digital writing, on the other hand, facilitates the preparation and organization of professional and academic texts (meeting minutes, lesson plans, etc.), speeds up homework and assessment processes, and prevents unnecessary intimacy with parents.

"I do a lot of reading professionally, to be honest. Therefore, in the teaching process in the classroom, it allows the teaching method techniques, and then the process to run successfully and efficiently. Professionally, I see a lot of benefits, and since I can access a lot of information at the same time, digital contents provide great convenience at the point of teaching." (T4- Public School/Nigde)

"I mean, I can say this about work, I like to communicate with parents via text message rather than talking on the phone. In order to maintain a certain level, in order to prevent sincerity, I express it via text message. Because when you talk, sometimes it goes to places you don't want, but when you write, you are in control, so I use digital writing professionally." (T11- Public School/Sanliurfa)

Category 3: Perceptual contribution

Teachers (N=2) stated that digital reading activities made significant perceptual contributions. It is thought that the visual and auditory elements offered by digital environments attract the attention of students and readers more and increase interaction by appealing to more sensory organs in the learning process. It is emphasized that these features strengthen the learning motivation of digital reading and help readers to maintain their interest more intensely.

"But of course, I think it is an application that should be used to add color to the lesson, to make a difference. Since they involve more sensory organs when they listen, digital reading contributes to their visualization in their minds in terms of memorability." (T7- Private School/Ankara)

Category 4: Affordability

Teachers (N=2) stated that digital reading is economical. The fact that digital information can be easily transferred with portable devices such as flash drives provides practicality of use, while reducing the need for printed materials, preventing tree cutting and contributing to the ecological balance. One teacher's opinion on this issue is as follows:

"Because something that directly affects trees and respiration is what we call printed resources. In digital resources, it gives us an advantage in terms of ecological balance. It affects our life at many points." (T9- Private School/Istanbul)

Category 5: Personal development

Teachers (N=4) stated that digital writing makes significant contributions to personal development. Digital writing provides the opportunity to meet and communicate with important personalities, develop new friendships and offer a more enjoyable writing experience. In addition, it is thought that digital writing skills support development in line with the requirements of the age and increase individuals' self-expression competencies.

"Digital writing offered me many opportunities, not as a teacher but as a person. Thanks to digital writing, I reached some special people I like and follow through e-mail, and they have made very beautiful and precious friends, which is very important for me. In fact, thanks to digital writing, I continued to communicate and learned a lot." (T10-Public School/Konya)

Category 6: Facilitation

Teachers (N=6) emphasized that digital writing facilitates the writing process. Features such as storing, updating and changing texts in the digital environment and easily detecting spelling mistakes make the writing process more flexible and practical. It is stated that these features speed up the writing process and provide ease of use. One teacher's opinion on this issue is as follows:

"If you are going to write an article, I prefer digital. If I am going to share something with someone, it may be that the note etc. is not beautiful, it may be that it saves time. In a shorter time, when you write wrongly, you can make up for it more easily instead of throwing away a whole page." (T6- Public School/ Gaziantep)

Theme 2: Disadvantages

"... when you read a book, you can get into that atmosphere, but when you read something from digital tools, you can get distracted very quickly, notifications and such are constantly running in the background, so I can say that digital literates have higher distraction" (T14-Public School/Gaziantep)

"... it can be difficult to access these tools all the time. I always have to turn on my computer when I am doing academic study. You may not be able to carry it to every environment, you may not always have it with you, you may go somewhere like a vacation, but you have to carry your computer with you." (T11- Public School/Ankara)

The above quotations can be given as examples of the participants' disadvantages regarding their digital reading and digital writing tendencies. As a result of the content analysis, teachers' digital reading processes stand out in the categories of "cognitive disadvantages", "emotional disadvantages" and "instructional disadvantages". In digital writing, "weakening of writing skills", "increase in the amount of errors" and "difficult access" categories were collected.
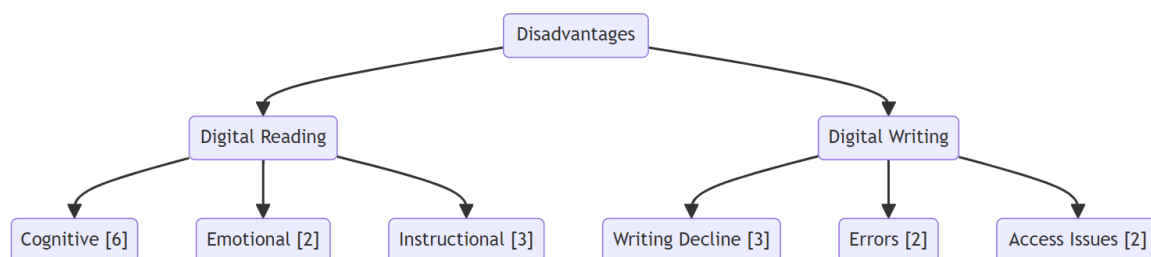
Figure 3: Categories for the disadvantages theme

Category 1: Cognitive disadvantages

The cognitive disadvantages (N=6) experienced by the teachers in the digital reading process were that especially prolonged digital reading increased focusing problems. In such reading environments, teachers state that the retention of information decreases, and it becomes difficult to keep the texts in mind. The multiple stimuli offered by digital environments lead to distraction during reading and negatively affect the process of in-depth comprehension.

"... it is easier to access, but in terms of permanent knowledge, I forget quickly. I realized that I forget more quickly when I learn information in a digital environment." (T8- Public School/Izmir)

Category 2: Emotional disadvantages

Teachers (N= 2) stated that the rapid accessibility of information in the digital reading process negatively affects the patience behavior of the new generation. The possibility of instant access to information offered by digital environments creates an expectation of quick access to everything in students and this situation weakens patience, in-depth thinking and time-based learning processes. The opinion of a teacher on this issue is given below:

"... digital reading is faster, and the new generation is more used to it than us. It brings us information faster. But a patient generation does not grow up anymore, we want to reach everything quickly in a hurry..." (T3- Public School/Konya)

Category 3: Instructional disadvantages

"But I should also point out that there is a lot of information pollution on the internet. If deep research needs to be done, the internet should be scanned, the literature should especially be scanned and researched. It should be checked whether there really is a printed source. Yes, we reach very fast, but we should not forget the information pollution..." (T1- Public School/Kayseri)

Teachers (N=3) emphasized that the information accessed from the internet contains intense information pollution among the disadvantages they encounter in terms of instructional aspects in the digital reading process. In addition, they state that accessing texts with a single button familiarizes students with ready-made information and this situation negatively affects the development of reading skills.

Category 4: Weakening of writing skills

Teachers (N=3) stated that allocating too much time to digital writing in the digital writing process leads to a weakening of writing skills. It is thought that the decrease in traditional writing practices causes students' basic writing skills such as handwriting and grammar to fall behind.

"I think writing with a pen can decrease our speed a little, and when we spend a lot of time on digital writing, handwriting can deteriorate, you can get a little rusty, writing skills can weaken." (T3- - Public School / Konya)

Category 5: Increase in the amount of error

Teachers (N=2) stated that writing with digital tools causes more errors than traditional writing methods. While the speed and convenience offered by digital environments may cause spelling mistakes to remain in the text unnoticed, functions such as automatic correction cause spelling and grammar skills not to develop sufficiently.

"I think I make more mistakes in digital writing or texting, but I think I make fewer mistakes when I write with a traditional pen. I pay more attention to punctuation, and even when you don't use punctuation, sometimes it feels like I'm butchering the language. I try to pay attention as much as I can when writing with a pen." (T12- Public School/Sanliurfa)

Category 6: Difficult transportation

Among the disadvantages encountered in the digital writing process, teachers (N=2) emphasized the lack of access to digital tools at all times and the difficulties in obtaining these tools. Especially in cases where economic and technical opportunities are limited or during vacation periods, digital writing processes are disrupted and this situation negatively affects learning activities.

"...it can be difficult to access these tools all the time.I always have to turn on my computer when I am doing academic study. You may not be able to carry it to every environment, you may not always have it with you, you may go somewhere like a vacation, but you have to carry your computer with you." (T7- Private School/Ankara)

Theme 3: Skill acquisition

Teachers' digital reading and writing tendencies are grouped into three main categories as "traditional", "digital" and "both" under the theme of skill acquisition. While most teachers (N=9 in reading, N=12 in writing) argue that traditional methods are more effective in teaching students reading and writing skills, others (N=1 in reading, N=2 in writing) state that digital resources play an important role in this process. In addition, some teachers (N=5 in reading, N=1 in writing) expressed the view that using both methods together gives more holistic and effective results in developing reading and writing skills.
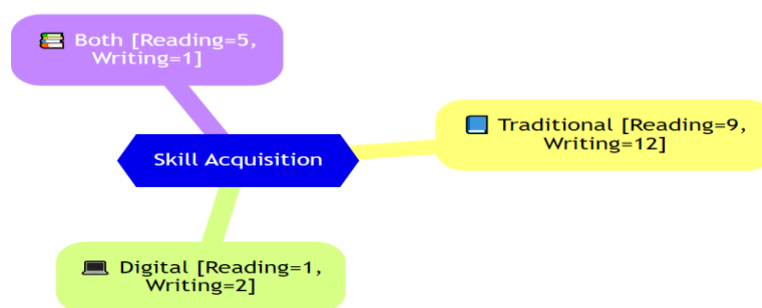

Figure 4: Categories related to the theme of gaining skills

Category 1: Traditional methods

Most teachers believe that traditional methods are more effective in teaching students reading and writing skills, providing deeper focus and lasting learning. Writing with a pencil improves motor skills and contributes to better information processing by strengthening mental processes. It is stated that reading through printed texts prevents the distraction caused by digital screens and provides more emotional connection to the reading process.

"In printed texts, they can touch the visual and examine it in more detail, or when they like a book very much, they can recommend it to their friends when they like its content, or they can see and buy it from their friends in that way. But when it is digital, it is like it is completely personalized. For example, I have never heard children talking about or recommending digital books." (T7- Private School/Ankara)

"I definitely think that traditional writing is more useful in gaining writing skills because the child thinks, thinks and uses more mental skills when transferring them to writing, but in digital writing, children now copy and paste from somewhere and take ready-made" (T10- Public School / Konya)

Category 2: Digital methods

Some of the teachers argue that digital methods are more effective in teaching students reading and writing skills. According to this view, digital tools provide students with quick access to information and make learning more interesting with various interactive and visual materials. In addition, digital platforms offer more flexibility in writing processes, allowing students to edit written texts more easily and providing an alternative opportunity especially for students who have difficulty in writing. Some excerpts from the teachers' opinions on this subject are given below:

"... I can't decide, to be honest, the children's preference is always for digital ... I don't want to print, I want them to do what they enjoy and digital allows them to read, we can send small texts again. It is also easier for us to deliver digital texts through parents. In print, we may not always get the text we want. But we use both, digital is indispensable." (T5-Public School/Gaziantep)

"I am a digitalist here as opposed to a reader. Traditional writing is especially difficult for some children. A child with dyslexia, for example. I think everything can be solved much more easily in digital. Life is already complicated enough for that child, let him/her write digitally. I think we should spend a little more time on digital writing than traditional writing here." (T9-Private School/Istanbul)

Category 3: Both

Some teachers argue that it is more effective to use both digital and traditional methods together in teaching students reading and writing skills. Teachers state that the combination of digital and traditional methods both improves students' technological literacy and, as a necessity of the age, students participate more effectively in reading and writing processes.

"Nowadays, since technology has developed a lot and children are always together with tablets and smartphones, digital is a very effective platform when used correctly. For example, I have a You are the Teacher activity. There, I show ways of accessing information, and we practice how to use it in the classroom. But in general, I think the child will also pick up the book. If we ignore one of the two, both teachers and students will lose, in terms of reading habit levels." (T15- Public School/Konya)

"... now because we are in the age of technology and the age of children using phones and tablets is quite low, I think they should use both. We cannot switch completely to digital writing because when they come to lessons such as mathematical expressions or geometry, children will also need to draw. For these, they need to use both." (T6- Public School/Gaziantep)

Theme 4: Reasons for preference

Under this theme, teachers' reasons for preferring digital reading and writing are presented under various categories. In both digital reading and digital writing processes, "ease of use" stands out as a common category. The categories of "necessity" and "affordability" are also emphasized for digital reading, while the categories of "ease of noticing errors" and "disliking traditional writing" are specific to the digital writing process.
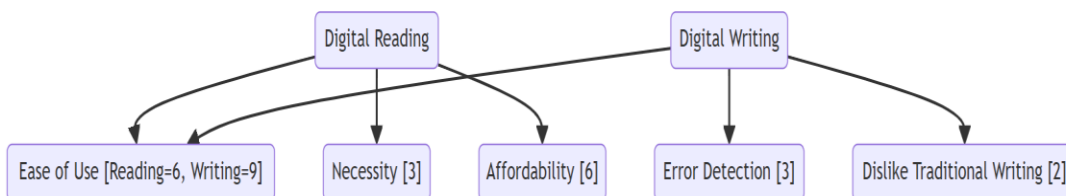

Figure 5. Distribution of categories related to the theme of reasons for preference

Category 1: Ease of use

Teachers state that one of the main reasons why they prefer digital reading and writing is ease of use. They believe that digital reading tools make it easier to access the desired texts instantly, while digital writing tools make it practical to edit, save and share texts. Sample excerpts from the opinions of teachers on this subject are as follows:

"When I am traveling from anywhere to anywhere online, I can open and read it immediately when I find a free time, it is easier for me to access it and spend time with it, digital texts have more ease of use,

my phone is always at hand in terms of making good use of time. That's why I prefer it more." (T2- Public School/Izmir)

"Saving time, ease of use, there is no pen and paper in every environment, so it is more permanent to write and take a photo or write and send it to someone, so I generally prefer digital" (T1- Public School/Kayseri)

Category 2: Necessity/compulsion

"I actually do it for my job, like preparing a document or a question. For example, I like to prepare worksheets, I like to prepare activities related to books. Then I have to read and prepare from a digital source because it is easier to write digitally. The necessity part of my percentage in business life always takes up a lot of space in my digital reading." (T5- Public School/Gaziantep)

As mentioned in the quote above, teachers stated that they prefer digital reading due to professional obligations. The transmission of official documents and other professional documents through digital applications obliges teachers to read on these platforms.

Category 3: Affordability

Teachers stated that they preferred digital reading because they found it more affordable. While access to printed resources usually requires higher costs, the fact that digital platforms offer a wide range of content for free or at lower prices has enabled teachers to turn to digital reading processes.

"Now, to be honest, yes, I pay a certain fee to buy a book. Printed texts are not financially economical, on the other hand, there is no money out of your pocket in the other way, so far in digital. Digital reading is more advantageous in terms of time, access and money." (T7- Private School/Ankara)

Category 4: Recognizing mistakes

As one of the reasons why teachers prefer digital writing, they stated that it is easier to notice errors in writing and correct them quickly. The auto-correct, undo and edit features offered by digital writing platforms allow teachers to see and correct spelling mistakes instantly.

"... I think it is easier to change and update what you have written, it is much easier to see mistakes than writing on a written paper. Writing in digital environment is more useful." (T3- Public School/Konya)

Category 5: Disliking traditional writing

"...also, I don't like writing, and I think my writing is ugly. If you are going to write something, I prefer digital. If I am going to share something with someone, it may be that it is not beautiful, it may be that it saves time." (T14-Public School/Gaziantep)

Teachers stated that one of the reasons why they prefer digital writing is that they do not like writing with a pen. In particular, they stated that they prefer digital writing methods because they think that their handwriting is not aesthetic or legible. The teachers stated that digital writing makes their writing more organized and legible, and therefore they find digital writing more practical.

Theme 5: Reader/Writer profile

Under this theme, teachers' literacy profile was analyzed in three categories: "traditional", "digital" and "both". Some teachers stated that they spend more time with traditional methods in their daily lives, preferring to read with printed materials and write with a pen. Another group stated that reading and writing on digital platforms are more involved in their daily routines. In addition, some teachers stated that they use both traditional and digital methods together and carry out these two processes in a balanced way.
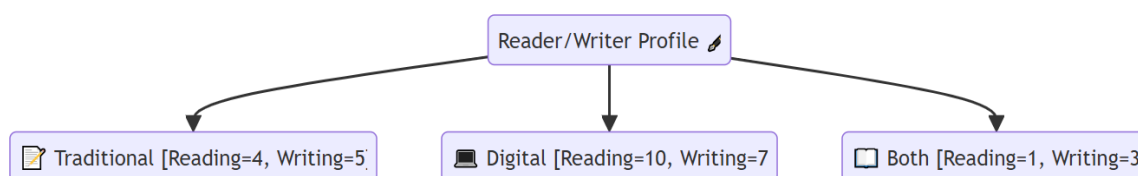
Figure 6: Categories belonging to the theme of reader/writer profile

Category 1: Traditional reader/Writer

Some teachers expressed that they have a traditional reader *(N=4)* / writer *(N=5)* profile and stated that they mostly read with printed materials and prefer to write with pen. The teachers who stated that they continue the reading process with physical resources such as books and magazines emphasised that they carry out written expression processes by using paper and pen instead of digital tools. These views show teachers' commitment to traditional reading and writing methods.

'I prefer printed reading. I am used to it in classical logic, and I prefer printed reading because I like digital reading, it feels artificial, underlining, taking notes.' (T12-State School /Şanlıurfa)

'I prefer traditional writing, as I said, it may also be a little bit in terms of privacy, because I want to keep it to myself, I am one of the old-fashioned ones, I even keep notes. I have my own diaries, I have writings that I plan to leave to my children, they are traditional in that way.' (T13- Public School/Ankara)

Category 2: Digital reader/Writer

Some of the teachers stated that they have a digital reader *(N=10)* / writer *(N=7)* profile and that they prefer digital platforms in reading and writing processes. The teachers who stated that fast access to books, articles and other resources in digital environment provided them with practicality, emphasised that digital tools offered the opportunity to correct mistakes and edit texts easily in the writing process. Sample quotations related to these thoughts are given below:

'...I prefer digital more because it is economical, easily accessible, easy to share, printed less. Apart from the books I buy for my child, if I consider the resources related to myself, I improve myself mostly from digital content resources.' (T8- Public School/İzmir)

'Digital, because it is much easier to organise, compile and collect, and that is the expectation. When you give someone a written text, they want it on a computer. The age requires this. I don't write much on social media anyway. My profession is not very suitable for writing on social media, so I can't say every idea everywhere, unfortunately.' (T7-Private School/Ankara)

Category 3: Both

'I use both printed sources and digital sources. I prefer digital for academic readings and printed for literary readings because it is difficult to print out in academic readings and it is faster in digital. But in literary reading, you only read it once and you read it with pleasure.' (T6- Public School/Gaziantep)

'I also prefer traditional writing because there is a group that defends it. It is said that in traditional writing, some things must be written with a pen, but I also prefer digital writing because it is a great convenience. When I think of something, I can write it on my phone immediately. I use it half and half in my daily life.' (T1- Public School/Kayseri)

When the opinions of the teachers who prefer both reading *(N=1)* and writing *(N=3)* processes are examined, it is seen that reading and writing in digital environments are mostly due to professional and academic studies, while traditional writing and reading from printed materials are preferred when reading literary texts or writing daily routines.

CONCLUSION AND DISCUSSION

In the study, digital reading and digital writing tendencies of classroom teachers working in different cities in Turkey were analysed. In this context, in their answers to the interview questions, they stated that digital reading and digital writing have some advantages over the traditional reading and writing process. According to the teachers, current studies can be followed more easily with digital texts and digital reading environment appeals to more senses by providing a richer content. They also stated that advantages such as multidimensional interaction, time saving and quick correction of spelling mistakes are among the instructional contributions of digital writing. Consistent with this finding of the study, Çıldır (2024) stated in his research that digital reading applications offer interactive and versatile learning opportunities by enriching users' reading experiences. In other words, the use of technology in the learning environment and application activities that appeal to more senses can provide effective and permanent learning (Dola and Aydın, 2020). Similarly, Erkan

and Dağal (2018) stated in their research that digital writing applications increase users' ability to quickly edit and share written content. According to classroom teachers, another advantage of digital reading and writing is that it facilitates teachers' work with functions such as sharing texts via e-mail and delivering in-class work to students. It facilitates the preparation and organisation of professional and academic texts and accelerates the processes of assignment and evaluation. This view of teachers is similar to the results of some studies in the literature (Odabaş et al., 2018; Ustabulut, 2021; Yamaç, 2019). The common result of the aforementioned studies is that the use of e-mail saves time for teachers and speeds up communication processes, and that sharing in the digital environment makes it easier for teachers to follow the progress of students and intervene when necessary. Finally, teachers stated that the ease of transferring digital information easily with portable tools such as flash-memory and storing, updating and modifying digital texts made the writing process more flexible and offered ease of use. Shimray, Keerty, and Ramaiah (2015) also stated in their study that e-readers are easy to carry, save space and money, and provide easy access to information.

According to the results of the study, the disadvantages stated by classroom teachers regarding digital reading and writing were handled in different categories. In the disadvantages of digital reading, it is widely stated that long-term digital reading causes distraction and increased focusing problems. Teachers state that in such digital reading environments, the permanence of information decreases and it becomes difficult to keep the texts in memory. In addition, the possibility of quick access to information from digital sources weakens the patience skills of the young generation and creates a tendency to expect quick results in every subject. This situation negatively affects processes such as in-depth thinking and learning over time. In addition, it is also emphasised that the information accessed over the internet often contains information pollution and that students' getting used to accessing ready-made information with a single click of a button harms the development of reading and comprehension skills. In Seok and Dacosta's (2016) study, it is stated that attention shift and cognitive load increase during reading digital texts. This situation causes students to have difficulty in understanding the texts. In parallel with the teachers' views that digital reading reduces the retention of information, Florit et al. (2022) stated in their study that digital reading creates difficulties especially for children with low reading skills and this situation prevents in-depth processing of texts. In the current study, the finding that students' getting used to accessing ready-made information quickly negatively affects the development of reading and comprehension skills is similar to the results of Wang et al.'s (2021) study. They stated that the use of digital platforms such as social media leads to cognitive overload, which weakens comprehension in the reading process. As for the disadvantages of digital writing, the classroom teachers stated that spending too much time on the digital writing process may lead to the weakening of traditional writing skills, and the auto-correction function of digital environments may prevent the adequate development of spelling and grammar skills. In addition, not always having access to digital tools and difficulties in obtaining these tools are other important disadvantages mentioned by teachers. When the studies in the literature on digital writing are examined (Mabuan, 2018; Yamaç, 2019), similarly, it is emphasised that the lack of access to digital writing tools or insufficient infrastructure can also prevent the development of digital writing skills. For example, as a result of Yamaç's (2019) research examining the perceptions of pre-service primary school teachers about the use of digital writing and reading applications in primary school, pre-service teachers stated that the low digital skills of students at primary school level may be due to the lack of adequate infrastructure such as internet and limited access to digital tools. In studies conducted with teachers, lack of technical support and lack of access to technology are reported as the most frequently expressed barriers (Hutchison and Reinking, 2011; Hutchison, 2012; Pang et al., 2015).

As another result of the study, in the theme of gaining skills, the view that both digital and traditional practices and sometimes using both together are effective in teaching reading and writing skills to students is dominant. Teachers who stated that traditional methods are more effective stated that they provide focus and permanent learning, prevent distraction caused by digital screens, establish emotional connection and understand better. In the studies comparing digital reading/writing and traditional reading/writing in the literature, the findings that students like the smell of paper, printed reading is more effective, it is easier to focus and understand better (Trace, 2016), digital reading can distract children's attention and reduce learning (Reich et al., 2016) are similar to the results of the

study. In addition, teachers who argued that digital methods are more effective in reading and writing skills stated that digital tools provide faster access to information, make learning more interesting and enable students to organise written texts more easily. In some studies on digital reading and writing, the results that digital writing makes all kinds of writing processes more practical (Ustabulut, 2023), offers the opportunity to access information quickly with a large number of sources (Trace, 2016), it is easier to conduct research in electronic environments, and digital reading is attractive and fun (Coiro et al., 2014) support the results of the current research. Teachers who support the use of both methods together stated that it improves both technology literacy and traditional literacy of students and that it is a necessity of the age. In a study conducted by Hutchison et al. (2012) with fourth grade primary school students, they were able to develop both digital literacy skills and traditional literacy skills of students through applications such as Ibooks, Popplet, Doodle Buddy and Strip Designer.

When the digital reading and writing tendencies of primary school teachers were analysed under the theme of reasons for preference, the reasons for teachers' preference for these applications were that they are easy to use, documents are now presented in digital environment due to professional necessity, they are more economical than printed materials, mistakes are easily noticed in the digital writing process and writing with pen is not liked. This view of teachers supports the theoretical principle that the nature of literacy is constantly changing in the age of information and communication technologies (Lankshear and Knobel, 2011; Leu et al., 2013). Increasing digital information has led readers to spend more time on reading devices and this has had a major impact on the reading behaviour of many readers. Digital information and content contributed to the shift from reading printed books to digital reading (Shimray et al., 2015). As digital tools are easy to use, they are more likely to expand their reading habits by reading e-books, as it may be more comfortable to read on a device rather than a printed book, especially when travelling (Loh and Sun, 2019). As a result of the study conducted by Kırmızı and Bertan (2023), it was concluded that pre-service teachers prefer digital writing because it is economical, convenient, they feel comfortable and motivated while doing digital writing. The results of the study in the literature support the findings of the current study.

Finally, the opinions of the classroom teachers were analysed under the theme of reader/writer profile and it was seen that the teachers had a traditional reader/writer profile and a profile dominated by both, although the digital reader/writer profile was at the forefront. The fact that teachers are predominantly in the digital reader/writer profile has an important share in the fact that teachers, especially those with postgraduate education degrees, use it in their academic studies. In the traditional reader/writer profile, it was stated that the teachers were in the traditional reader/writer profile out of habit and because of the need to take notes on the book and touch the book while reading. Teachers with both reader/writer profiles, on the other hand, stated that they prefer digital more in literary reading and writing daily routines in traditional, academic and professional information research. Individuals may prefer printed books for longer texts and when they want to concentrate (Baron, 2017), but they may prefer to use their phones to search for instant information (Zasacka, 2017).

Based on the results of the study, some suggestions are given:

- Long-term studies can be conducted on teachers 'digital reading and writing dispositions in order to understand teachers' adaptation processes to these skills and the relationship between dispositions and personal characteristics (age, gender, technology interest) can be examined.
- The effect of teachers' digital reading and writing dispositions on teaching strategies and how these dispositions shape classroom practices and student achievement can be investigated.
- In addition, research examining the relationship between teachers' digital literacy profiles and their reading and writing preferences can be planned.
- Studies examining the effects of technological innovations, especially tools such as artificial intelligence and augmented reality, on teachers' digital literacy tendencies can be designed.

REFERENCES

Alkali, Y. E. and Amichai-Hamburger, Y. (2004). Experiments in Digital Literacy. *CyberPsychology & Behavior.* 421-429. http://doi.org/10.1089/cpb.2004.7.421

Allan Martin and Jan Grudziecki (2006) DigEuLit: Concepts and Tools for Digital Literacy Development, *Innovation in Teaching and Learning in Information and Computer Sciences,* 5:4, 249-267, DOI: 10.11120/ital.2006.05040249

Aksoy, N.C., Karabay, E., and Aksoy, E. (2021). Sınıf öğretmenlerinin dijital okuryazarlık düzeylerinin incelenmesi. *Selçuk İletişim Dergisi, 14*(2), 859-894.

Arslan, S. (2019). *İlkokullarda ve ortaokullarda görev yapan öğretmenlerin dijital okuryazarlık düzeylerinin çeşitli değişkenler açısından incelenmesi* [Yayınlanmamış yüksek lisans tezi]. Sakarya Üniversitesi.

Baron, N. S. (2015). *Words onscreen: The fate of reading in a digital world*. Oxford University Press, USA.

Baron, N.S. (2017). Reading in a digital age. *Phi Delta Kappan*, 99(2), 15–20. https://doi.org/10.1177/0031721717734184

Bozgun, K., and Can, F. (2022). Digital reading and writing attitudes of preservice elementary teachers: Correlational research. *International Journal of Education and Literacy Studies*, *10*(3), 25-32.

Braasch, J. L., Bråten, I., and McCrudden, M. T. (Eds.). (2018). *Handbook of multiple source use* (pp. 1-13). New York: Routledge.

Choi, S.K, Rose, I. D., and Friedman, D.B. (2018). How Is Literacy Being Defined and Measured in Dementia Research? A Scoping Review. *Gerontology and Geriatric Medicine*, 4. doi:10.1177/2333721418812246

Coiro, J., Knobel, M., Lankshear, C., and Leu, D. J. (Eds.). (2014). *Handbook of research on new literacies*. Routledge.

Coiro, J., Sekeres, D. C., Castek, J., and Guzniczak, L. (2014). Comparing the quality of third, fourth, and fifth graders' social interactions and cognitive strategy use during structured online ınquiry. *Journal of Education, 194*(2), 1-15.

Cordero, K., Nussbaum, M., Ibaseta, V., Otaíza, M.J., Gleisner, S., González, S., Rodríguez-Montero, W., Strasser, K., Verdugo, R., Ugarte, A., Chiuminatto, P. and Carland, C. (2015). A new digital tool for interactive reading and writing. *Computers & Education,* 82, 486-496.https://doi.org/10.1016/j.compedu.2014.12.006.

Creswell, J. W. (2016). *Nitel araştırma yöntemleri beş yaklaşıma göre nitel araştırma ve nitel araştırma deseni* (3.baskı). (M.Bütün ve S.B.Demir, Çev. Ed.). Siyasal Kitabevi

Çıldır, B. (2024). Okuma becerisi bağlamında çocuklar için dijital (çevrim içi) okuma kulüpleri. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi,* 13(2), 524-543. https://doi.org/10.15869/itobiad.1341984

Dola, N., and Aydın, İ. S. (2020). Investigation of digital story authorship according to various variables. *Journal of Language Education and Research*, *6*(1), 17-34.

Dondis, D. A. (1973). A Primer of Visual Literacy. Cambridge, MA. MIT Press.

Elkıran, Y. M. (2021). Examining the relationship between pre-service Turkish teachers digital writing attitudes and digital reading tendencies. *International Journal of Progressive Education*, *17*(4), 437-450.

Erkan, S. S. Ş. and Dağal, A. B. (2018). Öğretmen adaylarının dijital okuma, yazma ve sunum hazırlama becerileri hakkındaki görüşlerinin değerlendirilmesi*. Journal of International Scientific Research,* 131-144. https://doi.org/10.21733/ibad.373767

Florit, E., Carli, P. D., Lavelli, M., and Masón, L. (2022). Digital reading in beginner readers: advantage or disadvantage for comprehension of narrative and informational linear texts? *Journal of Computer Assisted Learning,* 39(2), 432-445. https://doi.org/10.1111/jcal.12754

Gilster, P. (1997) Digital Literacy New York. John Wiley.

Hutchison, A. (2012). Literacy teachers' perceptions of professional development that increases integration of technology into literacy instruction. *Technology, Pedagogy and Education*, *21*(1), 37–56. https://doi.org/10.1080/1475939X.2012.659894

Hutchison, A., and Reinking, D. (2011). Teachers' perceptions of integrating information and communication technologies into literacy instruction: A national survey in the United States. *Reading Research Quarterly, 46*(4), 312–333.

Hutchison, A., and Wang, W. (2012). Blogging within a social networking site as a form of literature response in a teacher education course. *Educational Media International*, *49*(4), 263-275. DOI: 10.1080/09523987.2012.741197

ISTE (International Society for Technology in Education). (2017). ISTE Standards For Educators. Erişim adresi: https://www.iste.org/standards/for-educators

Karim, N. S. A., and Hasan, A. (2007). Reading habits and attitude in the digital age: Analysis of gender and academic program differences in Malaysia. *The Electronic Library, 25*(3), 285-298.

Kaya-Özgül, B., Aktaş, N., and Çetinkaya-Özdemir, E. (2023). Sınıf öğretmenlerinin ve sınıf öğretmeni adaylarının dijital okuryazarlık düzeylerinin çeşitli değişkenlere göre incelenmesi. *Cumhuriyet International Journal of Education, 12(1*):204-221

Kırmızı, F. an Bertan, E. (2023). Öğretmen adaylarının dijital ortamda yazmaya ilişkin tutumlarının ve görüşlerinin değerlendirilmesi. *Sınırsız Eğitim Dergisi* 8(1) https://doi.org/10.29250/sead.1239123

Korkmaz, M. (2020). *Sınıf öğretmenlerinin dijital okuryazarlık seviyelerinin belirlenmesi* [Yayınlanmamış yüksek lisans tezi]. Eskişehir Osmangazi Üniversitesi.

Lankshear, C., and Knobel, M. (2011). *New literacies: Everyday practices and social learning.* Berkshire, England: Open University Press

Larson, L. C. (2012). It's time to turn the digital page: Preservice teachers explore e-book reading. *Journal of Adolescent and Adult Literacy, 56*(4), 280-290

Leu, D. J., Kinzer, C. K., Coiro, J., Castek, J., and Henry, L. A. (2013). New literacies: A Dual-level theory of the changing nature of literacy, ınstruction, and assessment. In D. E. Alvermann, N. J. Unrau, & R. B. Ruddell (Eds.), *Theoretical models and processes of reading* (Sixth Edit., pp. 1150–1181). Newark, DE: International Reading Association.

Liu, Z. (2012). Digital reading. *Chinese Journal of Library and Information Science (English edition)*, 85.

Loh, C. E., and Sun, B. (2019). "I'd still prefer to read the hard copy": Adolescents' print and digital reading habits. *Journal of Adolescent & Adult Literacy*, *62*(6), 663-672.

Maden, S. (2018). Digital reading habits of pre-service Turkish language teachers. *South African Journal of Education*, *38*(2), 1-12.

Mangen, A. (2016), What Hands May Tell Us about Reading and Writing. Educ Theory, 66: 457-477. https://doi.org/10.1111/edth.12183

Martin, A., and Grudziecki, J. (2006). DigEuLit: Concepts and Tools for Digital Literacy Development. *Innovation in Teaching and Learning in Information and Computer Sciences*, *5*(4), 249–267. https://doi.org/10.11120/ital.2006.05040249

Miles, M. B. And Huberman, A. M. (1994). *Qualitative data analysis*. Thousand Oaks.

Odabaş, H., Odabaş, Z. Y., & Sevmez, H. (2018). Üniversite öğrencilerinde dijital / e-kitap okuma kültürü: Selçuk üniversitesi örneği. *Ankara Üniversitesi Dil ve Tarih-Coğrafya Fakültesi Dergisi,* 58(1), 139. https://doi.org/10.33171/dtcfjournal.2018.58.1.8

Özerbaş, M. A., and Kuralbayeva, A. (2018). Türkiye ve Kazakistan öğretmen adaylarının dijital okuryazarlık düzeylerinin incelenmesi. *MSKU Eğitim Fakültesi Dergisi, 5*(1), 16-25.

Pang, S., Reinking, D., Hutchison, A., and Ramey, D. (2015). South Korean teachers' perceptions of integrating information and communication technologies into literacy instruction. *Education Research International, 2015*, 1-13.

Pangrazio, L., Godhe, A.-L., and Ledesma, A. G. L. (2020). What is digital literacy? A comparative review of publications across three language contexts. *E-Learning and Digital Media*, *17*(6), 442-459. https://doi.org/10.1177/2042753020946291

Pierczynski, M. (2015). *Preservice teachers' perceptions of using digital technologies in literacy instruction*. (Unpublished doctoral dissertation), George Mason University.

Seok, S. and DaCosta, B. (2016). Perceptions and preferences of digital and printed text and their role in predicting digital literacy. *Asian Social Science,* 12(5), 14. https://doi.org/10.5539/ass.v12n5p14

Shimray, S. R., Keerti, C., and Ramaiah, C. K. (2015). An overview of mobile reading habits. *DESIDOC Journal of Library & Information Technology*, *35*(5), 343-354.

Singer, L. M., and Alexander, P. A. (2017). Reading on paper and digitally: What the past decades of empirical research reveal. *Review of educational research*, *87*(6), 1007-1041.

Trace, M. (2016). Do students lose depth in digital reading? The conversation. https://theconversation.com/do-students-lose-depth-in-digital-reading-61897

United Nations Educational, Scientific and Cultural Organization. (2005). *Education for all: Literacy for life*. Paris, France

UNESCO (2018). Defining literacy. GAML Fifth Meeting 17-18 October 2018 Hamburg, Germany. https://gamltest.uis.unesco.org/wp-content/uploads/sites/2/2018/12/4.6.1_07_4.6-defining-literacy.pdf

Ustabulut, M. Y. (2021). Analysis of the opinions of Turkish language teachers about digital writing. *Manisa Celal Bayar University Journal of Social Sciences*, *19*(2), 300-311

Yamaç, A. (2019). Prospective classroom teachers' perceptions of using digital reading and writing practices at the primary school level. *MANAS Journal of Social Studies*, *8*(1), 1-25.

Zasacka, Z. (2017). Screen-based reading practices—results of the Study on children's and adolescents' reading habits and attitudes. *Edukacja*, (5), 99–114. https://doi.org/10.24131/3724.170507

Wang, Y., Dai, Y., Li, H., and Song, L. (2021). Social media and attitude change: information booming promote or resist persuasion? *Frontiers in Psychology*, 12. https://doi.org/10.3389/fpsyg.2021.59607