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Examination of the Relationship Between the Digital Literacy Levels of Teachers and Their Information Search and Interpretation Strategies on the Website

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Abstract

The purpose of this study is to investigate, in terms of certain characteristics, the relationship between pre-service teachers' digital literacy levels and their methods for looking up and analyzing information on the internet. During the 2019–2020 academic year, 500 teacher candidates at Necmettin Erbakan University Ahmet Keleşoğlu Faculty of Education were given the Information Search and Interpretation Strategies Scale. A statistical program was utilized to analyze the research data. Gender, grade level, weighted grade averages, daily internet usage, daily social media usage, prior digital literacy education, mother and father education levels, and the most preferred device for Internet access were all identified as a consequence of the statistical analysis. The degree of digital literacy and the methods used to find and analyze information online did not appear to be significantly correlated. The digital literacy levels, information search and interpretation tactics used in the online environment, and the most frequent internet use characteristic of pre-service teachers were found to differ significantly.

Öğretmen Adaylarının Dijital Okuryazarlık Düzeyleri ile Web Ortamında Bilgi Arama ve Yorumlama Stratejileri Arasındaki İlişkinin İncelenmesi

Anahtar Sözcükler

Okuryazarlık
Dijital Okuryazarlık
Web Ortamında Bilgi Arama ve Yorumlama Stratejileri

Makale Hakkında

Gönderim Tarihi
18 Mayıs 2023
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31 Aralık 2023
Makale Türü
Araştırma Makalesi

Öz

Bu çalışmanın amacı, öğretmen adaylarının dijital okuryazarlık düzeyleri ile web ortamında bilgi arama ve yorumlama stratejileri arasındaki ilişkiyi analiz etmek için çeşitli değişkenler kullanmaktır. Necmettin Erbakan Üniversitesi Ahmet Keleşoğlu Eğitim Fakültesi 2019-2020 eğitim-öğretim yılında 500 öğretmen adayına Bilgi Arama ve Yorumlama Stratejileri Ölçeği uygulandı. Araştırma verileri bir istatistik programı kullanılarak analiz edilmiştir. İstatistiksel analizler, cinsiyet, sınıf düzeyi, ağırlıklı sınıf ortalamaları, günlük internet kullanım süresi, günlük sosyal medya kullanım süresi, önceki dijital okuryazarlık eğitimi, anne ve baba eğitim düzeyi ve internete bağlanırken en çok tercih edilen cihaz olarak interneti göstermiştir. Dijital okuryazarlık düzeyi ile web ortamında bilgi arama ve yorumlama stratejileri arasında kanıtlanmış bir anlamlı ilişki bulunmamıştır. Öğretmen adaylarının dijital okuryazarlık düzeyleri, web ortamında bilgi arama ve yorumlama stratejileri ile interneti en sık kullanma değişkeni arasında anlamlı bir farklılık gözlenmiştir.

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Introduction

The world is rapidly digitizing, and digitalization affects every aspect of our lives. The field of education, which is very important for society, is also affected and reshaped by this digitalization process (Özoğlu, 2019). Recently, many digital devices and educational software have emerged, and their use has become quite widespread. Educators, schools, and governments have tried to quickly integrate these digital technologies into education due to COVID-19 (Korkmaz, 2020). The fact that internet access has such an impact and affects people's lives has increased the number of people in this country in recent years (Arslankara & Usta, 2020). Türkiye is one of these states. Live lessons have been started to be given to students via the EBA platform.

It is the technology rules, the practices that parents find useful, and the management capabilities that school computers need to help prepare their schools for the 21st century (Durak & Özüdoğru, 2023; Hero, 2020). Concept of digital literacy has emerged as a concept that has gained popularity recently. The first person to mention concept of digital literacy is Gilster. Gilster (1997) explained the concept of digital literacy by associating it with field of education. However, digital literacy is not only related to the field of education, but also related to many fields such as science, health, language education, information, and communication technologies (Park, Kim, & Park, 2020). Gilster (1997) defined digital literacy as the knowledge and skills that students need to use internet environment and the content in this environment for their education.

Undoubtedly, social networks are formations that emerged because of a necessity coming from within the society. The problem of people needing to criticize and offer their opinions on the sites they follow has been solved primarily by being able to comment on these sites. However, since this is usually a short-lived solution, individuals have begun to create their own sites with the desire to present their own roofing ideas and have a permanent address (Arslankara & Usta, 2020). Today, we can do most of our work online. We can do our banking-related works via mobile banking or internet banking systems, and we can do our shopping using virtual shopping applications. When we need a book, we can easily access it through digital media. Concept of the digital world has emerged with the rapid development of digital technologies and their influence in all areas of our lives. With this development, great changes have occurred in digital environments. Many schools, workplaces, cities, and countries have started to exist in digital environments (Onursoy, 2018). In addition to these, states have developed systems so that citizens can get their work done without being dependent on time and space by transferring many businesses and transactions to the internet. E-government applications used in Turkey are an example of this (Erdem, 2014).

Services such as e-government, e-book, e-banking, and e-school provided by information and communication technologies have caused radical changes in people's lives and provided an environment for digital globalization. Digital globalization has led to expansion of concept of citizenship and emergence of concept of digital citizenship (Solmaz, 2020). Çubukçu and Bayzan (2013) defined the concept of digital citizenship as individuals using technology without harming others, by following moral rules and by approaching the content they encounter in digital environments with a critical approach. Kaya (2020) defined digital citizens as individuals who are aware of their responsibilities, comply with ethical and legal rules of information and communication technologies, actively participate in digital environments, and pay attention to security while using these technologies. Digital citizens need to have some basic knowledge and skills to be safe in online environments while performing their business and transactions (Yalçınkaya & Cibaroğlu, 2019).

Concept of digital literacy appears as a sub-dimension of the concept of digital citizenship (Solmaz, 2020; Kaya, 2020). With the use of the internet while performing literacy actions, individuals need to have additional literacy in order to use various platforms, programs and the internet in addition to traditional literacy (West, 2019). One of these literacies is digital literacy.

Digital literacy can be defined as individual's ability to access and use the information in the digital environment, to produce new information from this information and to share information produced (Avcı, 2020). Digital literacy can be expressed as accessing existing information and creating new information using digital tools.

Digitally literate individuals should have skills such as research, questioning, problem solving and evaluation (Duran & Özen, 2018). Maden, Maden and Banaz (2018) defined concept of digital literacy as act of reading and writing by using digital tools for purposes of individuals in general.

Digital literacy can be defined as accessing information by using multiple sources, connecting information, and having the necessary functional and digital skills while reaching information (Polizzi, 2020). When digitally literate individuals encounter a problem while using the internet, digital environments and digital technologies, they have the ability to understand why this problem arises and to eliminate the problem by taking the right actions (Gürtekin, 2019; Kabataş, & Karaoğlan Yılmaz, 2018).

Recently, many studies on digital literacy have been encountered. Pangrazio, Godhe and Ledesma (2020) examined how concept of digital literacy is conceptualized in context of English, Scandinavian and Spanish languages. They emphasized that concept of digital literacy differs according to languages, but definitions meet on a universal denominator. They stated that sociocultural differences are effective on the concept of digital literacy.

List, Brante and Klee (2020) tried to identify the individual skills required for digital literacy in their work. As a result of their study on pre-service teachers in the United States and Sweden, they determined the individual skills required for digital literacy as being technology-oriented, digital reading, being goal-oriented, and using critically.

Moon and Bai (2020) stated that the concept of digital literacy has four main components. The first of these components is technical skills. Technical skills are the ability to use digital tools necessary to access digital resources.

Knowledge use includes the process of using knowledge by becoming aware of knowledge. In other words, it is the method we follow when solving a problem. It can be defined as the ability to access information, make sense of, analyze, evaluate, and use information for the answer to the problem. The third component is communication. Communication can be defined as the ability of users to connect with other users in online environments. The final component is creation. Creation is defined as the ability to generate new knowledge.

To benefit from the information, we encounter in the digital world, we need to develop some skills (Atoy et al., 2020). Digital literacy is a constantly evolving concept. For this reason, we need to follow this development to adapt to the digital world throughout our lives. In addition, the basis of the concept of digital literacy is formed in childhood (Anisimova, 2020). Hsu, Wenting, and Hughes (2019) observed in their study that primary school students developed some skills as a result of digital literacy education. These skills are knowledge management, collaboration, communication and sharing, creation, evaluation and problem solving. In addition to these skills, they also stated that they observed a limited development in ethics and responsibility skills.

Martin (2005) and Martin (2008) mentioned in their studies that there are some basic elements of digital literacy. These elements are;

1. Digital literacy includes being able to perform successful digital actions in times of need.

2. Digital literacy is shaped according to the needs of the individual and is a process that develops in line with the needs of the individual throughout his/her life.

3. The concept of digital literacy includes components of other literacy that are related to digital literacy. In addition, digital literacy is a much broader concept than ICT literacy.

4. Digital literacy includes having relevant knowledge, skills, attitudes and techniques and planning, implementing and evaluating necessary digital action in case of need.

5. Digital literacy involves being aware of being digitally literate and taking responsibility for one's own development process.

One of the results of the digitalization of the world is the transfer of information resources to digital environments (Zillinger, 2019). Search engines and databases are at the forefront among the sources referenced when searching for information. The preference of these sources shows that the information in the digital environment is very important (Zengin, 2017). To search for information, digital resources are preferred because they are quickly and easily accessible (Tatar, 2016). Although searching for information in the digital environment is perceived as a fast and easy process, it is a complex process that requires effort to reach the correct information from a large amount of information on the web (Karaoğlan Yılmaz et al.,2019; Topal & Süner, 2021). The information seeking and accessing behaviors we perform in order to meet both personal and business-related needs that we encounter in daily life are very important (Berget & MacFarlane, 2020).

Today, with development of technology, internet has become the most preferred information source for individuals to access information. For this reason, it is very important to search and interpret information by using the internet consciously (İra & Geçer, 2017). The main reason why the Internet is preferred so much is that it removes the time and space limitations (Aşkar & Mazman, 2013; Karaoğlan Yılmaz, 2016). The rapid and easy accessibility of digital resources has made them highly preferred by students. Students have made changes in their information seeking behaviors in order to access information in the digital environment (Tatar, 2016). Information seeking behaviors can be defined as actions performed by an individual to reach information (Wilson, 2000).

Information search can be performed both directed and undirected. Directed calls are calls made to meet a specific information need. Information is obtained by writing the necessary query sentences. Undirected calls are made for exploratory purposes. These searches are more like navigating through links (Berget & MacFarlane, 2020).

Enochsson (2019) examined how Swedish youth perform their information-seeking behavior on the Internet. In his study, he observed that when students were directed to information, they could find information from a long text on a web page. However, he observed that students had problems in behaviors such as navigating a web page, recording and storing information. While searching for information, students understand what they read and search for information.

Reisoğlu, Çebi and Bahçekapılı (2019) examined how university students' online information seeking behaviors are shaped in simple and difficult tasks. Students' online information search strategies differed depending on their

experiences. Experienced students used the strategies of problem solving, determining the main idea, evaluation and purposeful thinking while performing difficult tasks. However, novice students performed behaviors related to disorientation and control strategies. Novice students used irrelevant keywords and deviated from their search tasks by clicking on irrelevant links. Students experienced in simple tasks used problem solving, purposeful thinking and control strategies. Novice students, on the other hand, performed behaviors related to the disorientation strategy. While performing the tasks, experienced students completed both simple and difficult tasks in a shorter time than novice students.

Sendurur and her colleagues (2019), tried to determine how successful students search the web for difficult and easy tasks. As a result of the study, they stated that the information search behaviors of the students on the web differ depending on whether the task given is difficult or easy. They have observed that even these successful students get lost while searching for information on the web in the face of difficult tasks. In both tasks, students showed copy and paste behavior. In both tasks, students tended to use web pages such as wikipedia.org. The students made frequent changes in their information seeking strategies as the task level became more difficult. They also observed an increase in the number of tabs opened, the websites visited, the keywords searched, and the time elapsed during the research as the task level became more difficult. Ackerman, Yom-Tov and Torgovitsky (2020) stated in their study that the search time depends on the reliability and consensus of the website when searching on the web.

Today, web-based learning has become more and more common. In addition, the information search strategies used in web environments and the way of evaluating the information obtained with the strategies used have also become important. Every information encountered in web environments, which are accepted as important information sources, is correct.

Users should take responsibility while evaluating the accuracy and relevance of the information (Geçer & Ira, 2014).

Polizzi (2020) gathered the knowledge and skills necessary to evaluate online content in six groups. These;

1. To be able to understand the source and nature of knowledge,
2. To be able to use multiple sources in a practical way,
3. To be aware of the context and content of the information,
4. To have the knowledge and skills necessary to use the Internet in a functional way,
5. Being aware of what we can or cannot do on the Internet,
6. To have a wider knowledge about digital environments and to have the necessary knowledge and skills about the internet.

Tsai (2004) has set some standards to evaluate the materials in web-based learning environments. These;

1. Integrity standards: web users pay attention to multiple source and authority standards when deciding on the accuracy of web information. The multi-source standard is to judge the accuracy of web information by comparing it with other sources. Authority is the reputation and reliability of the website, which is the source of information.

2. Usability standards: web users consider content and functionality standards when deciding on the usefulness of web information. The content standard is to decide whether the web information is useful or not. The functionality standard, on the other hand, is the convenience of web information in terms of accessibility, searchability and rich content.

3. Search strategies: web users pay attention to elaboration and exploration strategy and matching strategies when searching for information on the web. The elaboration and exploration strategy is to try to reach the most appropriate web information for the purpose by paying attention to the links between information sources. Matching, on the other hand, is trying to reach information through websites that exactly match the searched web information.

Method

In this section, the research model chosen following research problem, universe and sample, data collection tools, data collection processes and data analysis to be made information about subheadings in case of given.

The Research Model

This in the study to research participating teacher candidates' digital literacy levels of information search and interpretation strategies in the web environment. It is aimed to examine in terms of various variables. Therefore, in this research quantitative research pattern and descriptive scanning in the model relational scanning method will be used. Descriptive research is to determine the characteristics of a particular group. It can be defined as the data collection study for Relational research is only studies that examine between events or situations to determine what happened aspect identifiable (Büyüköztürk et al., 2012).

The Research Universe and Sample

This research was carried out by Necmettin Erbakan in the 2019-2020 academic year. To prospective teachers studying at Ahmet Keleşoğlu Faculty of Education, University has been applied. As a result of the examinations made on the collected questionnaire forms, missing or incorrect One to scale not found. Conclusion aspect collected data This in scope analysis has been done.

To the participants belonging demographic data below tables in case of given.

Table 1. Teacher Candidates' Gender Related Data

	Frequency (n)	Percentage (%)
Female	323	64.6
Male	177	35.4
Total	500	100.0

Table 1 also seen about to sample constituent teacher candidates 64.6% of (N=323) Female, 35.4%' your reputation (N=177) Male is observed.

Table 2. Teacher Candidates' Class Level

Class level	Frequency (n)	Percentage (%)
1	147	29.4
2	116	23.2
3	120	24.0
4	117	23.4
Total	500	100.0

Table 2 also seen about to sample constituent teacher candidates 29.4% (N=147) 1st Class, 23.2% of (N=116) 2. Class, 24.0% (N=120) 3rd Class, 23.4% (N=117) whereas 4. is the class.

Table 3. Teacher Candidates' Average Academic Note

Average Academic Note	Frequency (n)	Percentage (%)
1.50-2.00	42	8.4
2.01-2.50	120	24.0
2.51- 3.00	154	30.8
3.01-3.50	129	25.8
3.51-4.00	55	11.0
Total	500	100.0

Table 3 also seen about to sample constituent teacher candidates 8.4% of (N=42) 1.50-2.00 academic note to the average, 24.0% of (N=120) 2.01- 2.50 academic note to the average, 30.8% of (N=154) 2.51-3.00 academic note average, 25.8% (N=129) have 3.01-3.50 academic grade point average, and 11.0% (N=55) 3.51-4.00 academic to grade point average has is observed.

Table 4. Teacher Candidates' Daily Internet Use Duration

Daily Internet Use Duration	Frequency (n)	Percentage (%)
1-2 hour	49	9.8
3-5 hour	314	62.8
6-9 hour	121	24.2
10 hours And above	16	3.2
Total	500	100.0

Table 4 also seen about to sample constituent teacher candidates 9.8% of (N=49) daily 1–2 hour internet used, 62.8% of (N=314) daily 3-5 hour Internet used, 24.2% of (N=121) daily 6-9 hour Internet used, 3.2% of (N=16) daily 10 hour And above Internet use is observed.

Table 5: Teacher Candidates' Daily Social Media Use Duration

Daily Social Media Use Duration	Frequency (n)	Percentage (%)
1-2 hour	232	46.4
3-5 hour	268	53.6
Total	500	100.0

Table 5 also seen about to sample constituent teacher candidates 46.4% (N=192) used social media for 1-2 hours a day, 53.6% (N=268) daily 3-5 hours of social media uses is observed.

Table 6. Data On the Frequency of Teacher Candidates Search For Information on The Web

Information Search Frequencies on The Web	Frequency (n)	Percentage (%)
Now and again	159	31.8
Generally	268	53.6
Each time	73	14.6
Total	500	100.0

Table 6 in seen about to sample constituent teacher 31.8% (N=159) of the candidates sometimes search for information on the web, 53.6% (N=268) generally web also information they seek, 14.6% of (N=73) each time on the web information they are looking for is observed.

Table 7. Teacher Candidates' Digital Literacy Experiences

Status of taking digital literacy	Frequency (n)	Percentage (%)
Yes	50	10.0
No	450	90.0
Total	500	100.0

Table 7 also seen about to sample constituent teacher 90.0% of candidates (N=450) more before digital with literacy relating to education they did not receive, 10.0% (N=50) whereas more before digital with literacy relating to education received is observed.

Table 8. Teacher Candidates' Smartphone Use Condition

Usage of Smartphone	Frequency (n)	Percentage (%)
Yes	497	99.4
No	3	0.6
Total	500	100.0

Table 8 also seen about to sample constituent teacher 99.4% of candidates (N=497) clever telephone used, 0.6% of (N=3) whereas clever telephone did not use is observed.

Table 9. Teacher Candidates' Mom Education Level

Mother Education Level	Frequency (n)	Percentage (%)
Primary school	146	29.2
Middle school	133	26.6
High school	122	24.4
License	99	19.8
Total	500	100.0

Table 9 in seen about to sample constituent teacher 29.2% of candidates (N=146) their mothers primary school graduate, 26.6% of (N=133) their motherssecondary school graduates, 24.4% (N=122) of their mothers were high school graduates, 19.8% (N=99) their mothers bachelor's degree is observed.

Table 10. Teacher Candidates' Father Education Level

Father Education Level	Frequency (n)	Percentage (%)
Primary school	85	17.0
Middle school	80	16.0
High school	155	31.0
Associate degree	41	8.2
Licence	139	27.8
Total	500	100.0

Table 10 in seen about to sample constituent teacher 17.0% of candidates (N=85) their fathers primary school graduate, 16.0% of (N=80) their fathers middle school graduate, 31.0% of (N=155) their fathers high school graduate, 8.2% of (N=41)fathers were associate degree graduates, 27.8% (N=139) fathers were undergraduate graduates. is observed.

Table 11. Teacher Candidates' Internet Usage Purpose

Purpose of Internet Usage	Frequency (n)	Percentage (%)
Research	125	25.0
Playing Game	54	10.8
Following News	299	59.8
Social media	22	4.4
Total	500	100.0

Table 11 also seen about to sample constituent teacher 25.0% of candidates (N=125) internet -most A lot research for the purpose of they use, 10.8% of (N=54) they use the internet mostly for playing games, 59.8% (N=299) internet social media to use for the purpose of they use, 4.4% of (N=22) internet-most for many other purposes observed to be used.

Table 12. Data on the Device Teacher Candidates Mostly Connect to the Internet

The Device Most Connected to the Internet	Frequency (n)	Percentage (%)
Computer	84	16.8
Other	416	83.2
Total	500	100.0

As can be seen in Table 12, it is observed that 16.8% (N=84) of the prospective teachers in the sample use computers as the device they connect to the internet the most, and 83.2% (N=416) use other devices as the device they connect to the internet the most.

Table 13. Teacher Candidates' Internet Connection Status

Internet Connection Status	Frequency (n)	Percentage (%)
Yes	429	85.8
No	71	14.2
Total	500	100.0

Table 13 also seen about to sample constituent teacher 85.8% (N=429) of the candidates have a continuous internet connection, 14.2% (N=71) continually to internet connection owner is observed not to exist.

Table 14. Teacher Candidates' Family Monthly Income

Family Monthly Income Levels	Frequency (n)	Percentage (%)
0-2000 TL	50	10.0
2001-4000 TL	183	36.6
4001-6000 TL	169	33.8
6001-8000 TL	55	11.0
over 8000	43	8.6
Total	500	100.0

Table 14 also seen about to sample constituent teacher The family monthly income level of 10.0% (N=50) of the candidates was 0-2000 TL, 36.6% (N=183) of the family 2001-4000 TL of monthly income level, 33.8% (N=169) of family monthly income level 4001-6000 TL, 11.0% (N=55) of the family monthly income 6001-8000 TL, 8.6% (N=43) family monthly income level of 8000 TL And above is is observed.

Data Collection Vehicle and/or Techniques

Before presenting data collection tools to prospective teachers, the rules of ethics related to privacy were shared and it was explained how the scales should be filled. The collected data with statistics program analysis has been done.

Findings

Of the research This in the section research questions, without research collected dataThe Findings of the statistical analyzes made according to the comments in detail presented.

Examining digital literacy and online information searching strategies by gender

Study of the group digital literacy and web in the environment information call of their condition to the gender variable according to t-test Findings Table 1.

Table 15. Examining digital literacy and online information searching strategies by gender

	Gender	N	$\overline{X}$	S	Sd	t	**p**
Digital literacy	Female	323	58,653	8.7865	498	-1,232	.219
	Male	177	59,627	7.8137			
Searching for information on the web	Female	323	80,529	8.8026	498	-.524	.600
	Male	177	80,972	9.3998			

As can be seen in Table 15, the t-test was obtained for unrelated samples.made to the findings according to, study of the group digital literacy (Female $\bar{x}$ =58.65; Male$\bar{x}$ =59.62) And web in the environment information call

of their condition (Female $\bar{x}$ = 80.52; Male $\bar{x}$ = 80.97) does not show a significant difference according to the gender variable (p>.05). Other One in words, study of the group digital literacy and web in the environment information call statuses according to the gender variable does not change.

Examining digital literacy and online information searching strategies by classroom level

Study of the group digital literacy and web in the environment information call of their condition class to the variable according to significant One difference showing and that you didn't show oriented single factor analysis of variance (ANOVA) of findings at Table 2.

Table 16. Examining digital literacy and online information searching strategies by classroom level

Class in which they studied	Source of Variance	Sum of Squares	df	Mean Square	F	p
Digital literacy	Intergroup	123,375	3	41.125	.573	.633
	Ingroups	35589,623	496	71,753		
	Total	35712.998	499			
Searching for information on the web	Intergroup	180,274	3	60.091	.739	.529
	Ingroups	40343.428	496	81.338		
	Total	40523.702	499			

As seen in Table 16, the study group's digital literacy and web for unrelated samples according to the class variable of information seeking situations in the According to the findings obtained using factor analysis of variance , the study group's digitalsignificant difference between the scores of their literacy status for the class variable. there is no difference [F(3-496)= .573, p > .05]. In other words, working group digital literacy status does not change according to the class variable. Also, study group's information search status in the web environment for the class variable. points between significant One difference there is no [F(3-496)= .739, p > .05]. Other One In other words, the information search status of the workgroup in the web environment is determined by the class variable. does not change.

Examining digital literacy and online information searching strategies by average academic performance

Study of the group digital literacy and web in the environment information call of their condition weighted note average to the variable according to significant One difference showing and Table 17 shows the single-factor analysis of variance (ANOVA) findings given.

Table 17. Examining digital literacy and online information searching strategies by average academic performance

	Source of Variance	Sum of Squares	df	Mean Square	F	p
Digital literacy	Intergroup	256,521	4	64,130	.895	.466
	Ingroups	35456.477	495	71.629		
	Total	35712.998	499			
Searching for information on	Intergroup	762,362	4	190,590	2.373	.051

the web	Ingroups	39761.340	495	80,326
	Total	40523.702	499	

As seen in Table 17, the study group's digital literacy and web unrelated according to the weighted grade point average variable of According to the findings obtained by using one-factor analysis of variance for the samples, weighted grade point average variable of the digital literacy status of the study group. There is no significant difference between the scores they received for the students [F(4-495)= .895, p > .05]. In other words, the digital literacy status weighted grade point average of the study groupto the variable according to does not change. Moreover, study of the group web in the environment information call of their condition weighted note average to the variable oriented they received points [F(4-495)= 2.373, p > .05]. In other words, study of the group web in the environment information call status weighted note averageto the variable according to does not change.

Examining digital literacy and online information searching strategies by daily internet use

Study of the group digital literacy and web in the environment information call status of daily internet use differs significantly according to the variable of daily internet use. Table 18 shows the single-factor analysis of variance (ANOVA) findings given.

Table 18. Examining digital literacy and online information searching strategies by daily internet use

	Source of Variance	Sum of Squares	df	Mean Square	F	p
Digital literacy	Intergroup	235,654	2	117,827	1.651	.193
	Ingroups	35477.344	497	71,383		
	Total	35712.998	499			
Searching for information on the web	Intergroup	110.719	2	55,359	.681	.507
	Ingroups	40412.983	497	81,314		
	Total	40523.702	499			

As seen in Table 18, the study group's digital literacy and web unrelated according to daily internet usage variable According to the findings obtained by using one-factor analysis of variance for the samples , study of the group digital literacy of their condition daily Internet use of the variable [F(2-497)= 1.651, p > .05]. In other words, the digital literacy status of the study groupIt does not change according to the internet usage variable. In addition, the working group in the environment information call of their condition daily Internet use of to the variable oriented they received points between significant One difference there is no [F(2-497)= .681, p > .05]. Other One in words, study of the group web in the environment information call status daily Internetuse of to the variable according to does not change.

Examining digital literacy and online information searching strategies by daily social media use

Study of the group digital literacy and web in the environment information call t-test Findings according to daily

social media usage variable of at Table 19.

Table 19. Examining Digital Literacy And Online Information Searching Strategies By Daily Social Media Use

Daily Social Media Use		N	$\overline{x}$	S	Sd	t	p
Digitalliteracy	1-2 hour	232	59.147	9.2855	498	.365	.715
	2 hour And above	268	58,869	7.6893			
Searching for information on the web	1-2 hour	232	79,901	9.6839	498	-1.817	.070
	2 hour And above	268	81,366	8.3451			

As can be seen in Table 19, the t-test was obtained for unrelated samples. According to the findings, digital literacy (1-2 hours) of the study group X =59.14; 2 hours and above x =58.86) And web in the environment information call of their condition (1-2 hour x =79.90; 2 hours or more X =81.36) according to the daily social media usage variable difference does not show (p>.05). Other One in words, study of the group digital literacy and information seeking on the web, daily use of social media to the variable according to does not change.

Findings Regarding the Web Information Search Frequency Variable

Single-factor analysis of variance (ANOVA) findings regarding whether the study group's digital literacy and information seeking on the web show a significant difference according to the variable of frequency of information seeking on the web are given in Table 20.

Table 20. One-Factor Analysis of Variance (ANOVA) Results Of The Study Group's Digital Literacy And Information Seeking On The Web According To The Frequency Of Information Seeking On The Web Variable

Frequency of Searching for Information on the Web	Source of Variance	Sum of Squares	df	Mean Square	F	p
Digital literacy	Intergroup	532,215	2	266.107	3,759	.024
	Ingroups	35180,783	497	70,786		
	Total	35712.998	499			
Searching for information on the web	Intergroup	245,035	2	122,517	1512	.222
	Ingroups	40278,667	497	81,044		
	Total	40523.702	499			

As seen in Table 20, the study group's digital literacy and web According to the variable of the frequency of searching for information on the web, the information search situations in theAccording to the findings obtained by using one-factor analysis of variance for the samples, study of the group digital literacy of their condition web also information call frequency There is a significant difference between the scores they get for the variable [F(2-497)= 3.759, p < .05]. In other words, digital literacy of the working group status web varies according to the

frequency of seeking information. What groups does this difference come from? originated from, One Another in other words difference Which groups what you did to determine as a result of the LSD test performed for the purpose of in favor of the rank); usually to always (usually in favor of); always to occasionally (always in favor) and always to usually(always in favor). In addition, in the web environment of the working group information call of their condition web also information call frequency to the variable oriented they received points between significant One difference there is no [F(2-497)= 1,512, p >.05]. Other One In other words, the status of the working group searching for information on the web to the frequency variable according to does not change.

Examining digital literacy and online information searching strategies by educational experience

Study of the group digital literacy and web in the environment information call status to the variable of having previously received education on digital literacy. according to t-test Findings Table 21 given.

Table 21. Examining Digital Literacy and Online Information Searching Strategies By Educational Experience

		N	$\bar{x}$	S	Sd	t	p
Digital literacy	Yes	50	62,840	8.3602	498	3.421	.001
	No	450	58,571	8.3717			
Searching for information on the web	Yes	50	83,520	9.3356	498	2.355	.019
	No	450	80,371	8.9302			

As seen in Table 21, the t-test for unrelated samples was obtained using the t-test.made to the findings according to, study of the group digital literacy (Yes $\bar{x}$ =62.84; No $\bar{x}$ =58.57) and information search status (yes) on the web. $\bar{X}$ =83.52; No $\bar{x}$ =80.37) According to the variable of having previously received education on digital literacy, there is a significant difference shows (p>.05). Other One in words, study of the group digital literacy information search situations in the web environment have previously been related to digital literacy.education taking status to the variable according to is changing.

Examining digital literacy and online information searching strategies by mom education level

Study of the group digital literacy and web in the environment information call of their condition mom education level to the variable according to significant One difference showing and One-factor analysis of variance (ANOVA) findings indicating that the given.

Table 22. Examining Digital Literacy and Online Information Searching Strategies by Mom Education Level

		Sum of squares	df	Mean Square	F	p
Digital literacy	Intergroup	333.159	4	83,290	1.165	.325
	Ingroups	35379,839	495	71,474		
	Total	35712.998	499			
Searching for information on the web	Intergroup	262,258	4	65,565	.806	.522
	Ingroups	40261.444	495	81.336		
	Total	40523.702	499			

As seen in Table 22, the study group's digital literacy and web in the environment information call of their condition mom education level to the variable according to unrelated According to the findings obtained by using one-factor analysis of variance for the samples, study of the group digital literacy of their condition mom education level to the variableoriented they received points between significant One difference there is no [F(4-495)= 1,165, p >.05]. In other words, digital literacy status of the study group mother education does not change according to the level variable. In addition, in the web environment of the working group information call of their condition mom education level to the variable oriented they received pointsbetween significant One difference none [F(4-495)= .806, p > .05]. another one in words, the information search status of the study group in the web environment was determined by the mother education level variable. according to does not change.

Examining digital literacy and online information searching strategies by father education level

Study of the group digital literacy and web in the environment information call of their condition father education level to the variable according to significant One difference showing and One-factor analysis of variance (ANOVA) findings indicating that the given.

Table 23. Examining Digital Literacy and Online Information Searching Strategies By Father Education Level

		Sum of squares	df	Mean Square	F	p
Digital literacy	Intergroup	378,482	4	94,620	1,326	.259
	Ingroups	35334,516	495	71,383		
	Total	35712.998	499			
Searching for information on the web	Intergroup	695,822	4	173,956	2.162	.072
	Ingroups	39827,880	495	80,460		
	Total	40523.702	499			

As seen in Table 23, the study group's digital literacy and web in the environment information call of their condition father education level to the variable according to unrelated According to the findings obtained by using one-factor analysis of variance for the samples, study of the group digital literacy of their condition father education level to the variableoriented they received points between significant One difference there is no [F(4-495)= 1,326, p >.05]. In other words, digital literacy status of the study group father education does not change according to the level variable. In addition, in the web environment of the working group information call

of their condition father education level to the variable oriented they received points [F(4-495)= 2.162, p > .05] . In other words, information search status of the study group in the web environment to the variable of father education level. according to does not change.

Examining digital literacy and online information searching strategies by internet usage purpose

Study of the group digital literacy and web in the environment information call there is a significant difference between the variables of the internet usage purpose most. One-factor analysis of variance (ANOVA) findings on whether Table 24 given.

Table 24. Examining Digital Literacy and Online Information Searching Strategies By Internet Usage Purpose

Purpose of Internet Usage	Source of Variance	Sum of squares	df	Mean Square	F	p
Digital literacy	Intergroup	537.107	2	268.554	3.794	.023
	Ingroups	35175.891	497	70.776		
	Total	35712.998	499			
Searching for information on the web	Intergroup	534.418	2	267.209	3.321	.037
	Ingroups	39989.284	497	80.461		
	Total	40523.702	499			

As seen in Table 24, the study group's digital literacy and web according to the variable of the purpose of using the internet the most. single factor for unrelated samples to the findings obtained using analysis of variance. according to, study of the group digital literacy of their condition internet -most A lot useThere is a significant difference between the scores they got for the variable of purpose [F(2- 497) = 3.794, p < .05]. In other words, the digital literacy status of the study group. It varies according to the variable of the purpose of using the internet the most. What is this difference from groups originated from, One Another in other words difference Which groups what you did as a result of the LSD test carried out to determine the difference between research and social media. between (in favor of social media) and between social media and research (in favor of social media)appears to be in favor of the media). In addition, information in the web environment of the working group call of their condition internet -most A lot use purpose to the variable oriented they received points between significant One difference has [F(2-497)= 3,321, p < .05]. Other OneIn other words, the status of the working group searching for information on the web varies according to the frequency variable. Which groups caused this difference,One Another in other words difference Which groups what you did to determine for the purpose of made LSD test as a result, your difference research with social media between (social media in favor of social media) and between social media and research (in favor of social media) is seen.

Examining digital literacy and online information searching strategies by most preferred device

Study of the group digital literacy and web in the environment information call t-test according to the most preferred device variable to connect to the Internet Findings in Table 25 given.

Table 25. Examining Digital Literacy and Online Information Searching Strategies by Most Preferred Device

		Sum of Squares	df	Mean Square	F	p	p
Digital literacy	Computer	84	59,595	8.187	498	.709	.479
	Others	416	58,877	8.5183			
Searching for information on the web	Computer	84	83,869	9.0936	498	3,591	.000
	Others	416	80.043	8.8681			

As seen in Table 25, t-test was used for unrelated samples. get made to the findings according to, study of the group digital literacy (Computer x = 59.59**;** Others X = 58.87) According to the most preferred device to connect to the Internet does not show a significant difference (p>.05). In other words, the working group digital literacy statuses to the Internet connect for -most A lot preference begging device to the variable according to does not change. However, web in the environment information call of their condition (Computer x = 83.86**;** Others X = 80.04) Most preferred to connect to the Internet shows a significant difference according to the device variable (p<.05). In other words, information search situations of the workgroup in the web environment. preference begging device by variable is changing.

Examining digital literacy and online information searching strategies by Internet connection status

Study of the group digital literacy and web in the environment information call t-test Findings according to continuous internet connection status variable at Table 26 given.

Table 26. Examining Digital Literacy and Online Information Searching Strategies By Internet Connection Status

Continually Internet Connection Status		N	$\bar{x}$	S	Sd	t	p
Digital literacy	Yes	429	59,161	8.4795	498	1.058	.291
	No	71	58,014	8.3315			
Searching for information on the web	Yes	429	80,741	9.1654	498	.337	.736
	No	71	80,352	8.0713			

As seen in Table 26, t-test was used for unrelated samples. According to the findings, the study group's digital literacy (yes x = 59.16**;** No x = 58.01) And web in the environment information call of their condition (Yes x = 80.74**;** No x = 80.35) continually Internet connection status to the variable according to significant One difference shows (p>.05). In other words, the working group's digital literacy web information search status in the environment according to the constant internet connection status variable. is changing.

Examining digital literacy and online information searching strategies by Family Monthly Income

Study of the group digital literacy and web in the environment information call of their condition family monthly

income level to the variable according to significant One difference showing, and Table 27 shows single-factor analysis of variance (ANOVA) findings.

Table 27. Examining Digital Literacy and Online Information Searching Strategies by Family Monthly Income

	Source of Variance	Sum of Squares	df	Mean Square	F	p
Digital literacy	Intergroup	205.723	4	51,431	.717	.581
	Ingroups	35507.275	495	71,732		
	Total	35712.998	499			
Searching for information on the web	Intergroup	971.040	4	242,760	3.038	.017
	Ingroups	39552.662	495	79,904		
	Total	40523.702	499			

As seen in Table 27, the study group's digital literacy and web in the environment information call of their condition monthly income level to the variable according to unrelated According to the findings obtained by using one-factor analysis of variance for the samples, study of the group digital literacy of their condition monthly income level to the variable There is no significant difference between the scores they received for the students [F(4-495)= .717, p > .05]. In other words, the digital literacy status of the working group and monthly income level. to the variable according to does not change. Moreover, study of the group web in the environment information between the scores of the search statuses for the monthly income level variable. significant One difference has [F(4-495)= 3,038, p < .05]. Other One In other words, workof the group web in the environment information call status monthly income level to the variable according to is changing. This your difference Which from groups originated from, One Another in other words As a result of the LSD test performed to determine which groups made the difference, difference between 0-2000 TL and 6001-8000 TL (in favor of 0-2000 TL) and 0-2000 TL between 0 and 8000 TL (in favor of 0-2000 TL); 2001-4000 TL to 8000 TL higher (in favor of 2001-4000 TL); 4001-6000 TL to 8000 TL above between (in favor of 4001-6000 TL); 0-2000 with 6001-8000 TL between TL (in favor of 6001-8000 TL) and between 8000 TL and 0-2000 TL (8000 TL) over 8000 TL and between 2001-4000 TL (in favor of over 8000 TL) and 8000 TL above with 4001-6000 TL between (8000 TL above you in favor) is seen.

Discussion, Conclusion, and Suggestions

Discussion

According to the research findings, the digital literacy levels of teacher candidates do not differ according to gender. Similarly, in the studies of Karasu and Arıkan (2016), Arık and Bektaş (2016), Bozkan (2018), Maden, Banaz, and Maden (2018), Kozan (2018) and Yaman (2019), there is a relationship between the gender variable of teacher candidates and digital literacy. They concluded that there was no significant difference. In the study conducted by Ocak and Karakuş (2019), it was observed that there was a significant difference between the gender variable of pre-service teachers and their digital literacy levels only in the sub-dimension of practice. In the studies of Kıyıcı (2008), Özgür (2016), Çetin (2016), Arık (2018), Özerbaş and Kuralbayeva (2018), Yeşildal (2018), Boyacı (2019), Özoğlu (2019) and Korkmaz (2020) They concluded that there is a significant difference between the variable of digital literacy and digital literacy. This significance is in favor of male teacher candidates and

indicates that the digital literacy levels of male teacher candidates are higher than female teacher candidates. In the study conducted by Öçal (2017), the relationship between the gender of teachers and parents and their digital literacy levels was examined. While no significant relationship was observed between the digital literacy levels of the teachers and their gender, it was observed that there was a significant difference between the genders of the parents and their digital literacy levels. This significance is in favor of men and indicates that the digital literacy levels of male parents are higher than that of females.

According to the research findings, the digital literacy levels of teacher candidates do not differ according to their grade levels. Similarly, in the study conducted by Özerbaş and Kuralbayeva (2018) it was observed that there was no significant difference between teacher candidates' grade levels and digital literacy, except for only one sub-dimension. However, in the study by Boyacı (2019).

It has been observed that there is a significant difference between the grade levels of teacher candidates and their digital literacy levels. This significance indicates that pre-service teachers at 1st grade have lower levels of digital literacy than pre-service teachers at other grade levels. In the study conducted by Yaman (2019), it was observed that there was a significant difference between the classroom levels of teacher candidates and their digital literacy levels. This significance indicates that the digital literacy levels of the pre-service teachers who go to the 2nd grade have lower digital literacy levels than those who go to the 3rd, 4th and 4th grades and above. In the study conducted by Hamutoğlu, Güngören, Uyanık, and Erdoğan (2017), it was observed that there was a significant difference between the classroom levels of teacher candidates and their digital literacy levels. This significance indicates that the digital literacy levels of the 1st grade teacher candidates are lower than the 3rd and 4th grade teacher candidates. In the study conducted by Kozan (2018), it was observed that there was a significant difference between the classroom levels of teacher candidates and their digital literacy levels. This significance indicates that the digital literacy levels of the 3rd grade teacher candidates are lower than both the 2nd and 4th grade teacher candidates.

According to the research findings, the digital literacy levels of teacher candidates differ according to their continuous internet connection. Similarly, in the study conducted by Öçal (2017), Özerbaş and Kuralbayeva (2018), Yaman (2019) and Korkmaz (2020), it was observed that there is a significant difference between pre-service teachers' status of having a constant internet connection and their digital literacy levels. This significance indicates that the digital literacy levels of pre-service teachers who have a constant internet connection are higher than those who do not have a permanent internet connection.

According to the research findings, the digital literacy levels of teacher candidates do not differ according to their daily internet usage time. Similarly, in the study conducted by Arık and Bektaş (2016), Arık (2018) and Boyacı (2019), it was observed that there was no significant difference between pre-service teachers' daily internet usage times and their digital literacy levels. In the study conducted by Çetin (2016), it was observed that there is a significant difference between the frequency of internet use of teacher candidates and their digital literacy levels. This internet of meaning

It is stated that the pre-service teachers who use the internet frequently think that they are more competent in terms of digital literacy than the pre-service teachers who use the internet at medium or low levels. In the study conducted by Özgür (2016), it was concluded that as the duration of internet use of teacher candidates increases during the day, their digital competence also increases. In the study conducted by Yaman (2019), it was observed that there was a significant difference only in the attitude sub-dimension between the daily internet usage time of teacher

candidates and their digital literacy levels. It has been observed that the digital literacy levels of pre-service teachers whose daily internet usage time is less than 1 hour are lower than that of pre-service teachers with 1-3 hours, 4-6 hours and 18 hours or more. He also observed that pre-service teachers who use the Internet for 8-10 hours a day are lower than those who use the Internet for 18 hours or more. In short, as a result of the study, it was concluded that as the daily internet usage time increases, the digital literacy attitude levels also increase.

According to the research findings, the digital literacy levels of teacher candidates do not differ according to their family income. Similarly, in the study conducted by Yaman (2019), it was observed that there was no significant difference between the family income status of teacher candidates and their digital literacy levels. In the studies conducted by Acar (2015) and Yeşildal (2018), it was observed that there is a significant difference between the family income status of teacher candidates and their digital literacy levels. In the study conducted by Öçal (2017), digital literacy proficiency perceptions of both teachers and parents were examined. As a result of the study, no significant difference was observed between teachers' family income status and digital literacy proficiency perceptions. However, it was observed that there was a significant difference between the family income status of the parents and their perceptions of digital literacy proficiency.

According to the research findings, the digital literacy levels of teacher candidates do not differ according to the education levels of their mothers and fathers. In the study conducted by Ocak and Karakuş (2019), it was observed that there was no significant difference between mother and father education levels and digital literacy levels. Acar (2015) and Öçal (2017) observed in their studies that there is a significant difference between parental education levels and digital literacy levels. In the study conducted by Yaman (2019), there was no significant difference between the mother and father education levels and digital literacy levels of teacher candidates only in the technical sub-dimension.

has been observed. He observed that the digital literacy levels of the teacher candidates whose mother education level is secondary school are higher than the teacher candidates whose mother education level is primary school. In the father's education level, he observed that the digital literacy levels of the teacher candidates whose education level is secondary school and undergraduate education are higher than those with primary school education. In the study conducted by Yeşildal (2018), the relationship between the digital literacy levels of adults and their educational status was examined. It has been observed that the digital literacy levels of illiterate and primary school graduates are lower than those of graduate, undergraduate, associate degree and high school graduates.

According to the research findings, the digital literacy levels of teacher candidates do not differ according to the device they most prefer while connecting to the internet. It has been observed that the most used device of teacher candidates is other devices. In the study conducted by Onursoy (2018), it was stated that the devices most used by university students while performing their digital literacy behaviors are smartphones and computers.

According to the research findings, the digital literacy levels of pre-service teachers do not differ according to their daily use of social media. However, in the study conducted by Yaman (2019), it was observed that there is a significant difference between the digital literacy levels of teacher candidates and their social media use. He observed that the digital literacy levels of pre-service teachers who use social media are higher than those who do not. In the study conducted by Hamutoğlu, Güngören, Uyanık, and Erdoğan (2017), it was observed that there is a significant difference between the digital literacy levels of teacher candidates and the frequency of their use of

social media. They observed that the digital literacy levels of teacher candidates who always use social media are higher than those who use social media occasionally and rarely.

According to the research findings, the digital literacy levels of teacher candidates do not differ according to their daily digital literacy training. In the study conducted by Yaman (2019), it was observed that there was no significant difference in the social factor dimension between the pre-service teachers' previous digital literacy training and their digital literacy levels.

According to the research findings, the digital literacy levels of teacher candidates differ according to the purpose they use the internet the most. However, in the study conducted by Kozan (2018), it was observed that there was no significant difference between the types of sites that teacher candidates visit the most and their digital literacy levels.

According to the research findings, the strategies of teacher candidates in searching and interpreting information in the web environment do not differ according to gender. Similarly, in studies conducted by Tatar (2016), Sırakaya and Çakır (2014), Tekin and Polat (2017), they observed that there was no significant difference between the gender of pre-service teachers and their online information search strategies. In the study conducted by Turan, Reisoğlu, Özçelik, and Göktaş (2015), it was observed that there was no significant difference between the gender of teachers and their online information seeking strategies. Ay (2016), on the other hand, observed that there is a significant difference between the gender of pre-service teachers and their online information seeking strategies. This significance indicates that male teacher candidates feel more competent than female teacher candidates in terms of using online information search strategies effectively. In the study conducted by Geçer and Ira (2015), it was observed that there was a significant difference between the gender of university students and the strategies of searching and interpreting information in the web environment. This significance means that male students use a single source among the strategies of searching and interpreting information in the web environment, choosing relevant content for the purpose, technical features and visual content strategies more often than female students. According to the research findings, the strategies of teacher candidates for searching and interpreting information in the web environment do not differ according to their grade levels. However, in the study conducted by Geçer and Ira (2015), it was observed that university students' strategies for searching and interpreting information in the web environment differed significantly according to their grade levels. This significance indicates that 1st grade students use the strategy of questioning different sources among the strategies of searching and interpreting information in the web environment more than 4th grade students. In addition, this significance indicates that 4th grade students trust official and expert websites more than 1st grade students.

According to the research findings, the strategies of teacher candidates for searching and interpreting information in the web environment do not differ according to their daily internet usage time. Similarly, in the study conducted by Geçer and Ira (2015), it was observed that university students' strategies for searching and interpreting information in the web environment did not show a significant difference according to their daily internet usage time. In the study conducted by Tekin and Polat (2017), it was observed that the online information search and interpretation strategies of teacher candidates did not show a significant difference according to their daily internet usage time. In the study conducted by Turan and her colleagues (2015), it was observed that teachers' online information search and interpretation strategies did not show a significant difference according to their daily internet usage time.

According to the research findings, the strategies of teacher candidates for searching and interpreting information on the web do not differ according to the frequency of searching for information on the Internet. However, in the study conducted by Sırakaya and Çakır (2014), it was observed that teacher candidates showed a significant difference between their online information search and interpretation strategies and their frequency of searching for information on the Internet. This significance indicates that the pre-service teachers who have a high frequency of searching for information on the Internet are higher in online information-seeking strategies such as problem solving, trial and error and control strategies.

Conclusion

This research aimed to examine the relationship between pre-service teachers' digital literacy levels and their strategies for searching and interpreting information in the web environment. A relational screening model was used in this study, which is quantitative research. The Findings obtained because of the study are given below.

The study involved teacher candidates, whose digital literacy levels and methods for searching and interpreting information online were influenced by factors such as gender, class level, weighted grade point average, daily internet usage, daily social media usage, prior digital literacy education, and mother's educational attainment. It was found that there was no statistically significant difference in terms of father's educational attainment or preferred device variables for Internet access. Stated differently, these factors include the gender, grade level, amount of time pre-service teachers spend on the internet and social media each day, prior experience with digital literacy, and mother education. The degree of digital literacy and the methods for finding and analyzing information in an online setting remain constant regardless of an individual's educational background, father's educational background, or preferred internet-connected device. It was observed that the digital literacy levels of the teacher candidates participating in the research showed a significant difference according to the frequency of searching for information on the web. In other words, the digital literacy levels of teacher candidates change according to the frequency of searching for information on the web. It has been observed that the digital literacy levels of teacher candidates who always seek information on the web are higher than those who often or generally seek information. However, it was observed that there was no significant relationship between the frequency of information search on the web and the strategies of searching and interpreting information on the web. In other words, the strategies of searching and interpreting information in the web environment do not change according to the frequency of information search on the web by the pre-service teachers.

It has been observed that both the digital literacy levels and the strategies of searching and interpreting information in the web environment of the teacher candidates participating in the research differ according to the variable of the purpose of using the internet the most. In other words, digital literacy levels and strategies of searching and interpreting information in the web environment change according to the purposes of using the internet the most. In terms of digital literacy, it has been observed that this change is higher among the pre-service teachers who use the internet for the purpose of using social media the most compared to the pre-service teachers who use it for research purposes. In terms of information search and interpretation strategies in the web environment, it was concluded that the pre-service teachers who use the internet mostly for social media are at a higher level than the pre-service teachers who conduct research.

It was observed that both the digital literacy levels and the strategies of searching and interpreting information in the web environment of the teacher candidates participating in the research showed a significant difference

according to the constant internet connection variable. In other words, digital literacy levels and strategies for searching and interpreting information in the web environment change depending on the condition that pre-service teachers have a constant internet connection. It has been concluded that the pre-service teachers who have a continuous internet connection are higher in both of them than those who do not.

It was observed that the digital literacy levels of the teacher candidates participating in the research did not show a significant difference according to the family income status variable. In other words, digital literacy levels of teacher candidates do not change according to family income level. On the other hand, it was noted that the prospective teachers' methods for looking up and analyzing data online differed significantly depending on their family wealth. Stated differently, the methods used by prospective teachers to find and analyze material on the internet vary depending on their family's income.

Suggestions

The following suggestions can be made for research to be conducted in line with the data obtained as a result of the research:

1. The sample of this study consists of teacher candidates. Therefore, there may be an educational effect on the data obtained in the study. Therefore, since different Findings can be obtained in different samples, the study can be repeated using different methods on different sample groups.

2. This research covers only pre-service teachers who continue to study at the university. The scope of the research can be expanded by repeating the same study to include the graduate teacher candidates.

3. In-faculty projects can be developed so that teacher candidates can improve their digital literacy.

4. In order for pre-service teachers to use the strategies of searching and interpreting information effectively in the web environment, trainings can be given to pre-service teachers to gain metacognitive skills.

5. In the lessons, activities can be developed to improve both the digital literacy levels of teacher candidates and their strategies for searching and interpreting information in the web environment.

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Yayın Etiği Bildirimi / Research Ethics

Etik bir sorun olmadığını beyan ederim. / I declare that there is no unethical problem.

Araştırmacıların Katkı Oranı / Contribution Rate of Researchers

Yazarlar çalışmaya % 50-%50 oranında aynı oranda katkıda bulunmuştur. / The authors contributed 50-50% to the study at the same rate.

Çıkar Çatışması / Conflict of Interest

Çalışmanın herhangi bir çıkar çatışması yoktur. / The study does not have any conflict of interest.

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Etik Kurul Onayı / The Ethical Commitee Approval

Bu çalışma için etik kurul onayı gerekmemektedir. / Ethics committee approval is not required for this study.

Kaynakça/References

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