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Research Article

MEASURING THE DIGITAL LITERACY LEVELS OF UNIVERSITY STUDENTS IN THE CONTEXT OF DISINFORMATION PROBLEM IN DIGITAL MEDIA*

DİJİTAL MEDYADA DEZENFORMASYON SORUNU BAĞLAMINDA ÜNİVERSİTE ÖĞRENCİLERİNİN DİJİTAL OKURYAZARLIK DÜZEYLERİNİN ÖLÇÜLMESİ

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ABSTRACT

With the rapid development and spread of internet technology in the information and communication age, the transition from the information society to the network society has brought many advantages as well as many problems, explicitly or implicitly. Especially the negative effects of digital addiction in Generation Z, which is born in the digital age and expressed as digital natives, and the fact that the audience is not aware of this situation or does not believe that it has negative effects makes it necessary to conduct research on the subject. On the other hand, the phenomenon of disinformation, which means the deliberate creation and dissemination of false and misleading information, emerges as an important problem with the spread of digital mass media. Starting from this perspective, firstly the concepts of digital media, disinformation and digital literacy were explained in this study and then a digital literacy scale was applied to university students. As a result of the study; it was found that the digital literacy levels of university students were significantly higher than the critical level in general.

ÖZ

Bilgi ve iletişim çağında internet teknolojisinin hızla gelişmesi ve yaygınlaşmasıyla, bilgi toplumundan ağ toplumuna geçiş, birçok avantajın yanında açık ya da örtük olarak birçok sorunu da beraberinde getirmiştir. Özellikle dijital çağda doğan ve dijital yerliler olarak ifade edilen Z kuşağındaki dijital bağımlılığın olumsuz etkileri ve kitlenin bu durumun farkında olmaması ya da olumsuz etkileri olduğuna inanmaması, konu ile ilgili araştırma yapılmasını gerekli kılmaktadır. Öte yandan yanlış ve yanıltıcı bilginin kasıtlı olarak oluşturulması ve yayılması anlamına gelen dezenformasyon olgusu da dijital kitle iletişim araçlarının yaygınlaşmasıyla birlikte önemli bir sorun olarak karşımıza çıkmaktadır. Bu perspektiften hareketle bu çalışmada öncelikle dijital medya, dezenformasyon ve dijital okuryazarlık kavramları açıklanmış, ardından üniversite öğrencilerine dijital okuryazarlık ölçeği uygulanmıştır. Çalışma sonucunda; üniversite öğrencilerinin dijital okuryazarlık düzeylerinin genel olarak eleştirel düzeyden anlamlı derecede yüksek olduğu tespit edilmiştir.

1 | INTRODUCTION

With the widespread use of digital media and tools, there has been a transition to an age where it is very easy to access information, but very difficult to reach accurate information. In other words, it can be said that there has been a transition from the information age to the disinformation age. Undoubtedly, the rapid spread of digital technologies, cultures and education levels of societies are very influential in this transition.

Although disinformation is produced by an organization or person, from time to time, some news channels and newspapers may produce untrue news by accepting deliberately produced information as a reference. Although the media is not the main source of disinformation here, it can act as a carrier and dissemination to the general public with the information produced for this purpose. However, some broadcasting organizations and media professionals may serve the content in line with their political economy interests, without the need to confirm the accuracy of the content, even if they doubt it or know that it is false content. At this point, as Özsoy (2017, p. 208) stated; Digital literacy, which is the general ability to develop a selective approach among the potentially unlimited information on the internet, to use the information and other digital resources on the internet, to search for information in digital environments, to reach the needed and qualified information from an infinite number of information, becomes almost a necessity.

In this direction, with this study, it is aimed to determine the digital literacy levels of university students and to raise awareness on this issue and to draw attention to the problem of disinformation caused by digital content produced and consumed by individuals who do not have digital literacy.

2 | DIGITAL MEDIA

While individuals were only passive spectators in the periods when traditional mass media were used, digital media has created a revolution by offering many attractive opportunities and has moved individuals and masses to an active and participatory position. Now, people of all ages, genders, professions, education levels or cultures can produce verbal, written, visual and auditory content as they wish through digital mass media, and moreover, they can respond/react to the content produced by others, thus providing interactive communication environment. Social media applications such as Facebook, twitter, Instagram and tiktok among digital mass media have increased interaction and created a new social environment. In these platforms, where following, being followed and being visible are at the forefront, the masses have almost tried to create a new identity for themselves. At this point, while it is very important to attract attention and be liked, the fact that the content is false, wrong, incomplete or exaggerated is not taken into account. While everyone's involvement in digital media environments jeopardizes the accuracy of what is shared, political and economic environments have also become vulnerable to attack.

Digital mass media, by their nature, are naturally much more vulnerable to malicious content through viruses, hackers, software. In addition, many studies reveal that young people are much more vulnerable to threats such as sexual hunting and bullying through online broadcasting. Here, digital media forms, also referred to as new media, resonate and at this point, a careful and impartial strategy is needed to protect the young population without hindering their development (Karabulut, 2015, p. 17). Since taking digital media under control prevents its natural structure arising from being a free environment and creating this control mechanism is very difficult and comprehensive in terms of technology and law, it is necessary to acquire skills through some training programs and to be a conscious consumer and producer in order to be protected from the dangers of digital media.

3 | DISINFORMATION

The concept of disinformation, which points to a deterioration and negativity in information, means disinformation and has the purpose of manipulation. Wardle and Derakhshan (2017, p. 5) focus on disinformation, the deliberate sharing of false information to cause harm. This false and deliberate information is created and shared with the aim of harming a person, social group, organization or country.

The trust in news in Turkey, the problem of fake news and the activities of news verification platforms in this sense have been the subject of various studies. In the study of Erkan and Ayhan (2018), in which they examined the problem of disinformation in social media through the example of Teyit.org, it was stated that increasing the digital literacy level of citizens is as important as the efforts of news verification platforms in preventing information pollution.

The clearest indicator of the influence and undeniable power of social media is the new social movements. Users can change the course of events or phenomena by acting collectively on social media. As it will be remembered, in the recent past, the 'The Arab Spring', 'The Furious Movement', 'the Occupy protests', 'the Taksim Gezi Park protests' and most recently the 'Yellow Vests' movement are new social movements that took place as a result of the mobilizing function of the social media and perhaps had great impacts on the course of history. (Toktay, 2019, p. 2). In these events, social media environments were used by everyone, and due to the magnitude of the events and their effects, content sharing was made uncontrollably, without questioning, without determining the source. This situation, in which the facts were distorted and turned into the propaganda of political actors, led to the people's anger and the growth of conflicts by shifting to different purposes. All these processes have shown what disinformation can cause, the difficulty of preventing it, and that the masses are not aware of the extent of the dangers that disinformation can create.

4 | DIGITAL LITERACY

The first researcher to reveal the concept of digital literacy is Paul Gilster. Gilster stated that digital literacy is a special kind of mind set associated with mastering ideas, not just pressing buttons (Gilster, 1997, p. 15).

Information literacy has been widely acknowledged as 'the ability of individuals to use information and communications technology (ICT) appropriately to access, manage, integrate and evaluate information, develop new understandings, and communicate with others in order to participate effectively in society' (Ministerial Council on Education, Employment, Training and Youth Affairs (as cited in Wu et al., 2020). On the other hand digital literacy; It is the combination of many behavioural patterns, such as creating new information, synthesizing digital resources, communicating with people and reflecting this process on social life, with the ability to use digital tools appropriately, individual ability, evaluation, combining, managing, and analysing (Martin, 2005, p. 135-136).

In parallel, the concept of digital competence draws attention to the fact that technical ability is not sufficient in the use of digital technologies. Digital competence; must include the ability to protect information, content, data and digital identities in an age of information massification and privacy challenges (as cited in Lucas et al., 2022). Digital competence, therefore, is broadly cross-disciplinary and complements other transversal competences such as the ability to solve complex problems, communicate, collaborate, learn autonomously, be creative and construct a social and market identity. In this sense, the effective use of digital technologies works as a strong mediator of such wider competences (Lucas et al., 2022).

The skills that digital literacy will develop, of course, cannot be realized at the same rate and speed in all segments of society. This is due to the inhomogeneous structure of societies. The digital media usage rates and competencies of many individuals with different demographic characteristics are extremely different from each other. At this point, individuals in the literature; digital immigrant, digital native, and digital hybrid.

4.1 Digital immigrant

Digital immigration defines individuals who are in their twenties and later who are acquainted with technology, the internet and the web, who may encounter difficulties or various adaptation problems in the use of technological tools and technology-based learning, and who have a lower level of technology literacy compared to digital natives (Prensky, 2001).

Digital immigrants also use social media within digital mass media, albeit to a limited extent. However, digital immigrants have difficulty in adapting to digital environments and adapting to innovations. Also, according to Bilişli (2021, p. 26); the fact that digital immigrants are generally resistant to change and not open to innovations also affects the level of technology use.

4.2 Digital native

The new generation students who are born into a technology-based world and develop a technological learning language by meeting technology from a very young age are called digital natives (Prensky, 2001). This generation prefers to live in a reality equipped with digital tools and thinks that this is normal and has high level skills in the use of technological tools (Arslan, 2020, p. 28).

On the other hand, Kirschner and Bruyckere (2017, p. 140); They argue that the definition of digital native is a myth, providing evidence that young people labelled as digital natives do not have the alleged ability to cognitively process multiple sources of information simultaneously, and that

educational schemes that assume this ability hinder rather than assist learning.

4.3 Digital hybrid

Digital hybrids; those who try to adapt themselves to the new environment, those who are preparing for the change process, those who are changing, and those who continue their old habits while changing (as cited in Tonta, 2009, p. 7).

Digital hybrids are aware of the risks and dangers of this innovation, as well as using digital media in necessary areas. However, their usage areas are more limited than digital natives.

5 | METHOD

As a method in the study; descriptive and relational survey models were used within the scope of the quantitative research model, and a face-to-face questionnaire was applied as a data collection tool. Data collection was conducted in June 2022 in order to reach the students more easily and to adhere to the timeline of the study. A group of Muğla Sıtkı Koçman University students, who were easily selected through sampling, was determined by Bayrakcı and Narmanlıoğlu (2021, p. 29-30) from 6 factors: ethics and responsibility, general knowledge and functional skills, daily use, professional production, privacy and security, and social dimension. and a digital literacy scale consisting of 29 items in total was applied. On the analysis of data; Descriptive statistics are presented with frequency, percentage, mean and standard deviation values. In order to determine the reliability levels of the scales, Co. Factor analysis was performed to determine the alpha test and sub-dimensions. Sample adequacy level (KMO) and structure test (Barlet's) were applied. In the study, t-test analysis was applied to compare the digital literacy levels of the participants according to gender. The variance analysis of the differences in the digital literacy levels of the participants according to the departments they received education was conducted. Correlation analysis was conducted to examine the relationships between the dimensions and age of the participants. P values less than 0.05 were considered statistically significant in the study. Analyzes were made with the SPSS 22.0 package program.

5.1 Purpose of the research

Muğla Sıtkı Koçman University Fethiye A.S.M.K. in this study, which will measure the digital literacy levels of Vocational School students, it is aimed to create an awareness on digital literacy in university students who are the Z generation, which is expressed as digital natives, and to contribute to the literature by drawing attention to the problem of disinformation caused by digital content produced and consumed by individuals who do not have digital literacy. In addition, thanks to digital literacy, it is aimed to shed light on the dimensions of the dangers posed by digital media tools and to support the protection of these negative effects from their production and consumption.

5.2 Sample of the research

Working group; Muğla Sıtkı Koçman University Fethiye A.S.M.K. Vocational School students. In the school; a total of 263 students were included in the study within the scope of Hotel Restaurant and Catering Services, Travel Tourism and Entertainment Services, Crop and Animal Production, Environmental Protection Technologies, Park and Horticulture, Accounting and Tax departments.

5.3 Limitations of the research

The study was limited to university students and only one scale was used to measure the digital literacy levels of students. Due to the size of the population, it was limited to the students of the Vocational High School where the project was carried out.

5.4 Research hypothesis and research questions

Research Hypothesis; It is claimed that due to the fact that we live in an age where it is very easy to access information, but very difficult to reach the right information, and information pollution in digital media and tools; Based on the main assumption, 'Digital literacy levels of Z generation university students are not at a level that can prevent producing and consuming disinformative content', answers will be sought to the research questions mentioned above.

5.5 Research questions

RQ1. Muğla Sıtkı Koçman University Fethiye A.S.M.K. What is the digital literacy level of Vocational School students?

RQ2. Do the demographic characteristics of the participants have an effect on their digital literacy skills?

RQ3. What is the awareness level of the participants about the dangers of the content they produce or consume through digital media?

RQ4. In digital media environments and tools that allow users to actively participate, do the participants have the competencies to produce content, to question the content and to look critically?

RQ5. Can participants distinguish information from disinformation?

RQ6. Do the participants have the knowledge of personal rights and legal obligations in the context of ethics and responsibility?

RQ7. Are the participants aware of the social impact of the use of digital media and tools?

6 | FINDINGS

6.1 Digital literacy scale

In order to test the reliability of 29 statements designed to determine the Digital Literacy levels of the participants in the survey study, Co. Alpha analysis was applied. At the end of the analysis, Co. The alpha coefficient was found to be 0.94. The coefficients obtained show that the Digital Literacy scale is quite reliable. As a result of this, it is seen that there is no need to raise any questions from the study. After the reliability analysis, factor analysis was applied to the scale with 29 statements for the purpose of testing the construct validity.

Table 1 Dimensions of digital literacy

Dimensions	n	X±s.s.	Explanation variance	Internal consistancy	KMO
Ethic and Responsibility	263	3,74±0,88	%11	0,79	
General Knowledge and Functional Skills	263	4,31±0,83	%13	0,83	
Daily Usage	263	3,59±1,32	%12	0,82	
Advanced Production	263	3,83±1,31	%12	0,77	0,94
Privacy and Security	263	3,53±1,13	%11	0,81	
Social Dimension	263	3,39±1,13	%10	0,78	

In the study, 6 sub-dimensions were determined after factor analysis. These dimensions were named as ethics and responsibility, general knowledge and functional skills, daily use, professional production, privacy and security, and social sub-dimensions. The sample adequacy coefficient (KMO) calculated in the factor analysis was found to be 0.94. It is an indication that the sample size (n=263) is quite sufficient to reveal the factor structure. In addition, the dimensions obtained according to the result of the bartlet test, in which the significance of the factor structures were tested ($p=0.01, p<0.05$), were structurally significant.

It was observed that the explained variance rate was 11% for ethics and responsibility, 13% for general knowledge and functional skills, 12% for daily use, 12% for professional production, 11% for privacy and security, and 10% for social. . It was determined that the total explained variance rate was 69% and above the critical value of 65%.

Ethics and responsibility levels were 3.74±0.88, general knowledge and functional skills were 4.31±0.83, daily use was 3.59±1.32, professional production was 3.83±1.31, confidentiality and it was seen that their security level was 3.53±1.13 points and their social level was 3.39±1.13 points. In general, it can be stated that all sub-dimensions are at a high level. However, it can be stated that the general knowledge and functional skills levels are higher in all sub-dimensions, and the social dimension scores are at lower levels compared to other dimensions.

Tabl3 2 Gender distributions

Gender	n	%
Male	147	55,9
Female	116	44,1
Total	263	100,0

It was determined that 55.9% of the participants included in the study were male and 44.1% were female. In general, it can be stated that the gender distributions are homogeneous.

In the study, 28.5% of the participants were hotel, restaurant and catering services, 17.1% were travel, tourism and entertainment services, 12.5% were plant and animal production, 14.1% were park and garden plants and 27.8 of them are educated in accounting and tax departments.

It was observed that the mean age of the participants was 19.90±1.32.

Table 3 Distribution of education departments

Section	n	%
Private restaurant and catering services	75	28,5
Travel and tourism services	45	17,1
Plant and animal production	33	12,5
Park and garden plants	37	14,1
Accounting and tax	73	27,8
Total	263	100,0

6.2 Examination of digital literacy dimensions by demographic characteristics

In the study, independent sample t-test was applied to examine the Digital Literacy Dimensions according to the gender of the participants. The independent sample t-test was preferred because the two groups and sub-dimension distributions of gender were compatible with the assumption of normality.

Table 4 Examination of digital literacy dimensions by gender

Dimension	Gender	n	X±s.s.	t	p
Ethic and Responsibility	Male	147	4,14±0,63	9,48	0,01*
	Female	116	3,24±0,91		
General Knowledge and Functional Skills	Male	147	4,50±0,51	4,31	0,01*
	Female	116	4,07±1,06		
Daily Usage	Male	147	3,94±1,10	5,04	0,01*
	Female	116	3,15±1,43		
Advanced Production	Male	147	4,11±1,01	3,92	0,01*
	Female	116	3,48±1,56		
Privacy and Security	Male	147	3,84±0,96	5,23	0,01*
	Female	116	3,14±1,21		
Social Dimension	Male	147	3,69±1,04	5,05	0,01*
	Female	116	3,02±1,12		

** Independent sample t-test, *Significant difference at the 0.05 level

According to the results, it was determined that the Ethics and Responsibility levels of the participants differed according to gender. It was determined that the reason for the difference was due to the fact that the Ethics and Responsibility levels of the male participants were higher than the females (t=9.48, p=0.01, p<0.05).

It has been determined that the levels of General Knowledge and Functional Skills differ according to gender. It was determined that the reason for the difference was due to the fact that the General Knowledge and Functional Skills levels of the male participants were higher than the females (t=4.31, p=0.01, p<0.05).

It has been determined that daily use levels differ according to gender. It was determined that the reason for the difference was due to the fact that the daily use levels of male participants were higher than that of females (t=5.04, p=0.01, p<0.05).

It has been determined that the levels of Professional Production differ according to gender. It was determined that the reason for the difference was due to the fact that the Professional Production levels of the male participants were higher than the females (t=3.92, p=0.01, p<0.05).

It has been determined that the levels of privacy and security differ according to gender. It was determined that the reason for the difference was due to the fact that the male participants had higher levels of Privacy and Security than the females (t=5.23, p=0.01, p<0.05).

It has been determined that their social levels differ according to gender. It was determined that the reason for the difference was due to the fact that the social levels of the male participants were higher than the females (t=5.05, p=0.01, p<0.05).

According to the results, it was seen that the digital literacy levels of men were higher than women.

In the study, Variance analysis test was applied to examine the Digital Literacy Dimensions according to the departments of the participants. The analysis of variance test was preferred because the 5 subgroups and sub-dimension distributions of the sections were in accordance with the normality assumption.

Table 5 Examination of digital litaracy dimensions according to departments

Dimensions	Section	n	X±s.s.	F	p	Difference
	Otel and restaurant catering services	75	3,98±0,6			
	Travel,tourism and entartaintment services	45	3,63±1,3			
Ethic and Responsibility	Plant and animal production	33	3,76±0,86	3,98	0,01*	5<1,2,3,4
	Park and garden plants	37	3,92±0,76			
	Accounting and tax	73	3,46±0,82			
	Otel and restaurant catering services	75	4,48±0,52			
	Travel,tourism and entartaintment services	45	4,11±0,84			
General Knowledge and Functional Skills	Plant and animal production	33	3,89±1,17	3,88	0,01*	3<1,2,3,4
	Park and garden plants	37	4,19±0,92			
	Accounting and tax	73	4,5±0,75			
	Otel and restaurant catering services	75	3,82±1,12			
	Travel,tourism and entartaintment services	45	3,04±1,85			
Daily Usage	Plant and animal production	33	3,43±1,31	3,02	0,02*	2<1,3,4,5
	Park and garden plants	37	3,82±1,18			
	Accounting and tax	73	3,64±1,08			
	Otel and restaurant catering services	75	4,05±0,99			
	Travel,tourism and entartaintment services	45	3,13±1,77			
Advanced Production	Plant and animal production	33	3,45±1,29	5,95	0,01*	2<1,3,4,5
	Park and garden plants	37	3,93±1,15			
	Accounting and tax	73	4,15±1,2			
	Otel and restaurant catering services	75	3,69±0,89			
	Travel,tourism and entartaintment services	45	3,27±1,64			
Privacy and Security	Plant and animal production	33	3,39±1,18	1,38	0,24	-
	Park and garden plants	37	3,72±1,09			
	Accounting and tax	73	3,5±0,93			
	Otel and restaurant catering services	75	3,44±1			
	Travel,tourism and entartaintment services	45	3,40±1,51			
Social Dimension	Plant and animal production	33	3,36±1,23	0,76	0,55	-
	Park and garden plants	37	3,62±1,11			
	Accounting and tax	73	3,24±0,92			

** Analysis of variance, * Significant correlation at the level of 0.05

According to the results, it was determined that the Ethics and Responsibility levels of the participants differed according to the departments. It was determined that the reason for the difference was due to the fact that the Ethics and Responsibility levels of the participants educated in the Accounting and Tax department were lower than the participants educated in other departments ($F=3.98$, $p=0.01$, $p<0.05$).

It has been determined that the levels of General Knowledge and Functional Skills differ according to the departments. It was determined that the reason for the difference was due to the fact that the General Knowledge and Functional Skills levels of the participants who were educated in the Plant and Animal Production Department were lower than the participants who were educated in other departments ($F=3.88$, $p=0.01$, $p<0.05$).

It has been determined that the daily usage levels differ according to the departments. It was determined that the reason for the difference was the fact that the daily use levels of the participants who were educated in the Travel, Tourism and Entertainment Department were lower than the participants who were educated in the other departments ($F=3.02$, $p=0.02$, $p<0.05$).

It has been determined that the levels of Professional Production differ according to the departments. It was determined that the reason for the difference was that the Professional Production levels of the participants educated in the Travel, Tourism and Entertainment Services department were lower than the participants educated in other departments ($F=5.95$, $p=0.01$, $p<0.05$).

It has been determined that the levels of privacy and security do not differ according to the departments of the students. It can be stated that the Privacy and

Security levels of the students studying in Hotel, Restaurant and Catering Services, Travel, Tourism and Entertainment Services, Crop and Animal Production, Park and Horticulture Accounting and Tax departments are not different (F=1.38, p=0.24, p>0.05).

It has been determined that the social levels of the students do not differ according to their departments. It can be stated that the social levels of the students studying in Hotel, Restaurant and Catering Services, Travel, Tourism and Entertainment Services, Crop and Animal Production, Park and Horticulture Accounting and Tax departments are not different (F=0.76, p=0.55, p> 0.05).

In the study, correlation analysis test was applied to examine the Digital Literacy Dimensions according to the ages of the participants. In the correlation analysis test, age and sub-dimension distributions were preferred because they were compatible with the assumption of normality.

Table 6 Relationship between dimensions and age

		Age
General Knowledge and Functional Skills	r	0,05
	p	0,39
Daily Usage	r	-0,07
	p	0,29
Advanced Production	r	0,03
	p	0,68
Privacy and Security	r	-0,07
	p	0,26
Social Dimension	r	-0,11
	p	0,08

**Correlation analysis was performed

According to the results, it was seen that there was no significant relationship between the general knowledge and functional skill levels of the participants and their age (p>0.05). It was observed that there was no significant relationship between the daily use levels of the participants and their age (p>0.05). It was observed that there was no significant relationship between the professional production levels of the participants and their age (p>0.05). It was observed that there was no significant relationship between the privacy and security levels of the participants and their age (p>0.05).

It was observed that there was no significant relationship between the social levels of the participants and their age (p>0.05).

In the study, correlation analysis test was applied to examine the Digital Literacy Dimensions of the participants. In the correlation analysis, sub-dimension distributions were preferred because they were suitable for the normality assumption.

Table 7 Relationship between dimensions

		Ethic and Responsibility	General Knowledge and Functional Skills	Daily Usage	Advanced Production	Privacy and Security	Social Dimension
Ethic and Responsibility	r	1					
	p						
General Knowledge and Functional Skills	r	0,54*	1				
	p	0,01					
Daily Usage	r	0,70*	0,52*	1			
	p	0,01	0,01				
Advanced Production	r	0,44*	0,78*	0,60*	1		
	p	0,01	0,01	0,01			
Privacy and Security	r	0,76*	0,65*	0,83*	0,80*	1	
	p	0,01	0,01	0,01	0,01		
Social Dimension	r	0,78*	0,36*	0,86*	0,75*	0,81*	1
	p	0,01	0,01	0,01	0,01	0,01	

**Correlation analysis was performed, *Significant correlation at the 0.05 level

It was observed that there was a positive and moderately strong significant relationship between Ethics and Responsibility levels and General Knowledge and Functional Skills levels (r=0.54, p=0.01). It was observed that there was a positive and strong significant relationship between the level of Ethics and Responsibility and the levels of daily use (r=0.70, p=0.01).

It was observed that there was a positive and moderately strong significant relationship between Ethics and Responsibility levels and Professional Production levels (r=0.44, p=0.01). It was observed that there was a positive and strong significant relationship between Ethics and Responsibility levels and Confidentiality and Security levels (r=0.76, p=0.01).

It was observed that there was a positive and strong significant relationship between Ethics and Responsibility levels and Social levels (r=0.76, p=0.01). It was observed that there was a positive and moderately strong significant relationship between the level of General Knowledge and

Functional Skills and the levels of daily use (r=0.52, p=0.01).

It was observed that there was a positive and strong significant relationship between the level of General Knowledge and Functional Skills and the levels of Professional Production (r=0.78, p=0.01). It was observed that there was a positive and strong significant relationship between General Knowledge and Functional Skills and Privacy and Security levels (r=0.765, p=0.01).

It was observed that there was a positive and significant relationship in writing power between the level of General Knowledge and Functional Skills and Social levels (r=0.36, p=0.01). It was observed that there was a positive and strong significant relationship between the level of daily use and the levels of Professional Production (r=0.60, p=0.01)

It was observed that there was a positive and strong significant relationship between the level of daily use and the levels of Privacy and Security (r=0.83, p=0.01). It was observed that there was a positive and strong significant relationship between the level of daily use and social levels (r=0.86, p=0.01).

It was observed that there was a positive and strong significant relationship between Professional Production and Confidentiality and Security levels (r=0.80, p=0.01). It was observed that there was a positive and strong significant relationship between Professional Production and Social levels (r=0.75, p=0.01).

It was observed that there was a positive and strong significant relationship between Privacy and Security and Social levels (r=0.81, p=0.01).

All sub-dimensions were found to be strongly correlated with each other at moderate and high levels.

7 | CONCLUSION AND DISCUSSION

As a result of the analyses made; contrary to the hypothesis, since the total explained variance rate was 69% and above the critical value of 65%, it was revealed that the digital literacy levels of the participants were above the critical level. From the research questions; 'Muğla Sıtkı Koçman University Fethiye A.S.M.K. What is the digital literacy level of Vocational School students?' To the question; In general, it can be said that all sub-dimensions are at a high level. 'Do the demographic characteristics of the participants have an effect on their digital literacy skills?' To the question; when the results of the analysis according to gender, education departments and age are examined, it has been revealed that the digital literacy levels of male students are higher than female students in all sub-categories. It was determined that there was a difference according to the departments, it was seen that there was no significant difference according to age. 'What is the awareness level of the participants about the dangers of the content they produce or consume through digital media?' And 'Can participants distinguish information from disinformation?' In response to your questions; when analysed over the privacy and security sub-dimension, it is seen that it is at a rate that can be considered high as 11%. 'In digital media environments and tools that allow users to actively participate, do the participants have the competencies to produce content, to question the content and to look critically?' According to the analysis in which the question was tested; it was determined that the general knowledge and functional skills subcategory was 13% and high. 'Do the participants have knowledge of personal rights and legal obligations in terms of ethics and responsibility?' The question is directly related to the sub-category of ethics and responsibility, and according to the results of the analysis, it was found to be at a high level with a rate of 11%. 'Are the participants aware of the social impact of the use of digital media and tools?' The question was also directly related to the social dimension and it was found to have the lowest variance with 10%.

When we look at different studies in the literature in which university students' digital literacy is measured with different sub-dimensions, it is seen that similar and different results are reached in our study. In Onursoy's (2018) study, although the levels of using technology and digital literacy are parallel, it was concluded that the literacy level is further behind, that young people labeled as digital natives do not have the ability to cognitively process information sources at the same time as claimed, and that this ability is insufficient even if it is determined to exist at the university level.

In Göldağ and Kanat's (2018) study measuring the digital literacy levels of students studying in the Fine Arts Department of the Faculty of Education; a

significant difference was found between male and female students in favor of males, and students studying in the Fine Arts Department compared to other departments.

In a similar study by López-Meneses et al. (2020), it was found that students' competencies in information and digital literacy, communication and collaboration were at the upper intermediate level, but they were at the lower intermediate level in terms of creating and disseminating multimedia content using different tools.

In Öncül's (2021) study measuring the digital literacy of first-year university students; it shows that first-year students need support in high-level digital literacy skills. Low performers tend to overestimate their skills, so self-assessment questionnaires are insufficient to provide needs assessment, but when combined with other scales, it has been shown to provide evidence of awareness.

The results obtained are promising since the digital literacy levels of university students are opposite to the predicted ones. As a matter of fact, disinformation, as one of the important problems of the age, can create very dangerous results with its function of directing the masses in line with certain purposes. In this respect, it has been concluded that the young audience, who is highly interacting with digital mass media and is described as digital native, has the necessary skills in this interaction to a large extent.

Digital media and disinformation issues have an important place as a result of the age we live in and are too comprehensive to be dealt with in one dimension. These issues, which have many sociological, political, economic and technological dimensions, can naturally be dealt with separately or together by different disciplines. The breadth of the subject, being related to many dimensions and being quite up-to-date necessitate it to be handled by different disciplines. Beyond that, the inclusion of digital mass media in the lives of everyone from all segments of society, regardless of age, gender, occupation, income level, education level, geography or culture necessitates individuals to improve themselves in this regard. Therefore, education, which comes to the fore as digital literacy, should be given the importance and value it deserves. Although digital literacy education has different reflections all over the world, it can be said that this subject has not yet received the value it deserves in Turkey. For this reason, it is recommended that digital literacy courses be given by professional professionals in primary, high school and universities as soon as possible. Moreover, in schools that train professional professionals, it is thought that this subject should be given at a more adequate level by reconciling it with professional ethics. In order to achieve this, the issue should be handled more seriously in academic fields and brought to the agenda. The distribution in the society can be revealed by conducting separate or comparative studies on different age groups or digital immigrant, digital native and digital hybrid groups as mentioned in the literature. Thus, digital literacy trainings can be applied by separating them into specific topics. Apart from general education and training programs, it can be included in personal development trainings and can be given as training in public and private institutions. Through the projects to be carried out, trainings can be planned for the determined regions and it can be ensured that it will be beneficial to more people.

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Institutional Review Board Statement

In order to carry out this study, approval and permission were obtained from the Ethics Committee of Muğla Sıtkı Koçman University. In addition, all participating students were informed and participation was provided on a voluntary basis. Ethics committee Protocol No: 210058 Decision No: 51.

KAYNAKÇA

Arslan, A. (2020). Examining the digital addiction levels of university students in terms of various variables. International e-Journal of Educational Studies, 4(7), 27–41. https://doi.org/10.31458/iejes.600483

Bayrakcı, S., & Narmanlıoğlu, H. (2021). Digital literacy as whole of digital competences: Scale development study. Düşünce ve Toplum Sosyal Bilimler Dergisi. https://dergipark.org.tr/en/download/article-file/1797036

Bilişli, Y. (2021). Digital media and digital literacy. Literaturk.

Erkan, G., & Ayhan, A. (2018). Disinformation and social media in political communication: Confirmation as a verification platform. Org. Journal of Akdeniz University Faculty of Communication, 29(Special Issue), 202–223. https://dergipark.org.tr/en/download/article-file/565835

Gilster, P. (1997). Digital literacy. John Wiley.

Göldağ, B. ve Kanat, S. (2018). Digital Literacy Status of the Students Who Studied Fine Arts Education. The Journal Academic Social Science Studies, Number: 70 , p. 77-92, Autumn I.

Karabulut, B. (2015). Digital natives, immigrants, and hybrids in the age of information society. Pamukkale University Journal of Social Sciences Institute, 21, 11–23. https://dergipark.org.tr/en/download/article-file/411659

López-Meneses, E., Sirignano, F. M., Vázquez-Cano, E., and Ramírez- Hurtado, J. M. (2020). University students' digital competence in three areas of the DigCom 2.1 model: a comparative study at three European universities. Austral. J. Educ. Technol. 36, 69–88. doi: 10.14742/ajet. 5583

Martin, A. (2005). Digeulit – A European framework for digital literacy: A progress report. Journal of & Literacy (Work in Progress), 2(1), 130–136.

Onursoy, S. (2018). Üniversite Gençliğinin Dijital Okuryazarlık Düzeyleri: Anadolu Üniversitesi Öğrencileri Üzerine Bir Araştırma. Gümüşhane Üniversitesi İletişim Fakültesi Elektronik Dergisi, Cilt.6, Sayı.2.

Öncül, G. (2021). Defining the need: digital literacy skills for first-year university students. Journal of Applied Research in Higher Education, Vol. 13 No. 4, 2021 pp. 925-943, Emerald Publishing Limited.

Özsoy, D. (2017). Media literacy. In E. Akbulut (Ed.), Introduction to communication. Atatürk University Open Education Faculty Publication.

Prensky, M. (2001). Digital natives, digital immigrants. From on the horizon, MCB university press, 9(5).

Toktay, Y. (2019). The effect of disinformation, manipulation and propaganda in social media [Master's Thesis]. [Marmara University].

Tonta, Y. (2009). Digital natives, social networks and the future of libraries. Turkish Librarianship, 23(4), 742–768.

Wardle, C., & Derakhshan, H. (2017). Information disorder: Toward an interdisciplinary framework for research and policy making. Council of Europe report. https://rm.coe.int/information-disorder-toward-an-interdisciplinary-framework-for-researc/168076277c