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# Classroom teachers' perceptıons of theır own dıgıtal lıteracy

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**Starting from early childhood, children require proper guidance for their spiritual, physical, and mental development, as well as for fostering awareness of digital environments and achieving academic success.Classroom teachers play an important role in helping students become aware of digital environments and acquire effective digital literacy skills. The data of this study, which was conducted to examine the perceptions of classroom teachers about their own digital literacy, were collected using a semi-structured interview form consisting of 4 open-ended questions. The study group for the research was determined using the criterion sampling method, which is one of the purposeful sampling methods. It consists of 40 primary school teachers who worked in a primary school during the 2023 to 2024 academic year and have taught 1st, 2nd, 3rd, and 4th grades during their tenure. The "semi-structured interview form" developed by the researcher was utilized as the data collection tool. The content analysis method was employed to analyze the qualitative data obtained. According to the findings of the research, classroom teachers express the definition of digital literacy as the ability to utilize digital tools for various purposes, access information using digital tools, and produce digital content. Additionally, it is noted that the purposes of utilizing digital tools in the classroom environment include capturing students' attention, engaging different senses, and maximizing time effectively. Regarding the problems encountered in the use of digital tools in the classroom environment and their solutions, teachers stated that they update the application when they experience software problems, restart the computer when it freezes, and request technical support when the internet connection is interrupted.To support digital literacy in the education system, it was emphasized that teachers' development should be supported, technological infrastructure and hardware in education should be strengthened, and applied digital learning environments should be created.**

**Key words:** Literacy, digital literacy, technology, digital technology.

## INTRODUCTION

In the 21st century, learning occurs within a rapidly evolving technological environment (Yang and Wu, 2012). Consequently, due to the technological advancements demanded by the era, a new skill domain, digital literacy, has emerged (Özbay and Özdemir, 2014). The significance of digital literacy in education is indisputable. The utility and impact of technologies such as mobile learning devices, online applications, and social media tools in the

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**Table 1.** Distribution of the study group according to gender.

| Gender | Frequency |
|---|---|
| Woman | 21 |
| Male | 19 |
| Total | 40 |

learning and teaching processes within digital environments have escalated (Malita and Martin, 2010; Robin, 2008). Various definitions of digital literacy exist (Maden et al., 2018), characterizing it as the proficiency in reading and writing using digital tools such as computers, televisions, and mobile phones. Digital literacy is a vital skill that enhances individuals' lives and enables them to lead safer lives. Present-day individuals possess the capacity to send emails, acquire knowledge on topics of interest, schedule appointments at hospitals, engage in social entertainment in virtual environments, read e-books, and take notes on these devices as necessary (Banaz, 2017). Digital literacy, necessitating fundamental skills, extends beyond mere computer and keyboard usage and online information acquisition (Buckingham, 2008). It encompasses the development of mental, emotional, and social competencies in digital environments through digital tools (Eshet-Alkalai, 2004). Digital literacy entails individuals' ability to be cognizant of digital environments, access, manage, adapt, evaluate, analyze, synthesize, construct new knowledge, create media expressions, and communicate through them (Martin, 2005). To achieve this, it is imperative to cultivate the capability to access safe and relevant information in digital environments, assess digital content, utilize social media platforms effectively, communicate harmoniously, and collaborate.

Examining classroom teachers' perceptions of their own digital literacy is considered essential for adapting education to the demands of today's digital age in terms of quality, as teachers face significant challenges in adapting to the pace of technological and educational change and integrating these developments into teaching and learning processes with a coherent plan for classroom practice (Allen and Berggren, 2016). Being proficient in digital literacy skills enables the individualization of teaching-learning processes and consideration of individual differences. It is crucial for teachers to be competent in digital literacy and to utilize digital tools in the classroom environment in alignment with the purpose and curriculum for the healthy development of children (Gillen and Kucirkova, 2017). Moreover, for students to acquire and enhance digital literacy skills in classroom settings, it is imperative for teachers to support their students (Millî Eğitim Bakanlığı [MEB], 2020). Starting from early childhood, children require proper guidance for their spiritual, physical, and mental development, as well as for fostering awareness of digital environments and achieving academic success. Therefore, classroom teachers play a crucial role in assisting students in becoming aware of digital environments and acquiring effective digital literacy skills.

## METHOD

The research was conducted with a study group determined through the criterion sampling method (Yıldırım and Şimşek, 2018), one of the purposeful sampling methods. The study group comprised 40 primary school teachers who were employed during the 2023 to 2024 academic year and taught 1st, 2nd, 3rd, and 4th grades. To protect the identity information of the teachers in the presentation of the research data, participants were assigned code names such as S1, S2. The distribution of the study group according to gender is depicted in Table 1. When Table 1 is analyzed, it is seen that 21 of the 40 participants are female and 19 are male teachers.

### Data collection tools

The "Semi-structured interview form," developed by the researcher, was employed to collect data for this qualitative study, which aimed to examine the perceptions of classroom teachers regarding their own digital literacy. Written opinion forms were utilized to gather detailed information from the participants about the relevant subject and interpret the data obtained (Çepni, 2012; Yıldırım and Şimşek, 2018). In the semi-structured interview technique, the interview process adheres to a pre-prepared protocol, facilitating systematic and comparable data collection (Yıldırım and Şimşek, 2018).

During the preparation of the semi-structured interview form, an extensive literature review on the subject was conducted, and the educational dimension of digital literacy was explored. The draft form of the interview questions underwent pilot application with the input of two field experts. The questions in the draft form were piloted with 20 participants, and necessary adjustments were made to create the final semi-structured interview form. The questions directed at classroom teachers in the interview form are as follows:

1) What do you think is the definition of digital literacy?
2) What are your purposes for using digital tools in the classroom environment?
3) What are the problems you encounter in the use of digital tools in the classroom environment and what are your solution suggestions?
4) What do you think can be done in the education system to support digital literacy?

The semi-structured interview form was applied by the researcher by stating that the research would be conducted with volunteer teachers and the confidentiality rights of the participants would be protected.

### Data analysis

During the content analysis of qualitative data, the forms were numbered, and the codes of the collected data were determined, creating categories based on these codes. The findings section was developed by establishing relationships between the themes obtained from the content analysis. This technique enables thoughts, attitudes, and opinions about the subject to emerge by bringing similar data together within the framework of certain concepts and themes and interpreting them in a way that the reader can understand. Content analysis involves coding the data, identifying themes, organizing codes and themes, and defining and interpreting the findings (Yıldırım and Şimşek, 2018).

### Validity and reliability

The data obtained from the semi-structured interview forms were

**Table 2.** Opinions on the definition of digital literacy.

| Theme | Subthemes | Frequency | % |
|---|---|---|---|
| Opinions on the definition of digital literacy | To be able to use digital tools for their intended purpose | 38 | 33.04 |
| | Ability to Produce Digital Content | 27 | 23.48 |
| | Sharing Digital Content | 3 | 2.61 |
| | Accessing Information by Using Digital Tools | 35 | 30.43 |
| | To be able to look critically at information in digital media | 5 | 4.35 |
| | Recognizing the Risks of Digital Environments | 7 | 6.09 |

*Participants may have more than one opinion.

**Table 3.** Opinions on the Purposes of Using Digital Tools in the Classroom Environment.

| Theme | Subthemes | Frequency | % |
|---|---|---|---|
| Opinions on the purposes of using digital tools in classroom environment | Using time effectively | 20 | 16 |
| | Diversifying learning environments | 15 | 12 |
| | Appealing to different senses | 35 | 28 |
| | Getting students' attention | 40 | 32 |
| | Being a role model for using digital tools | 15 | 12 |

*Participants may have more than one opinion.

reviewed by the researchers. To ensure the internal reliability of the study, the data were independently coded by two field experts, and consistency was confirmed. The codings made by both researchers were compared, and any discrepancies were identified. Employing Miles and Huberman's (1994) formula Reliability = (Consensus / Consensus + Disagreement) X 100, a reliability coefficient of 0.85 was achieved, indicating sufficient reliability. Frequency and percentage were utilized in the evaluation of the obtained data.

## FINDINGS

Opinions regarding the definition of digital literacy are presented in Table 2. When Table 2 is reviewed, it is observed that the majority of classroom teachers' perspectives on the definition of digital literacy emphasize the ability to use digital tools for their intended purpose, accessing information using digital tools, and producing digital content. Statements concerning recognizing the risks of digital environments, critically evaluating information in the digital environment, and sharing digital content are less frequently mentioned. Below are some statements from classroom teachers expressing their views on the definition of digital literacy, presented in code order.

S7: *"Digital literacy is exactly the ability to use digital tools for their intended purpose."*
S9: *"Digital literacy is the ability to produce and share content using digital tools."*
S35: *"I think digital literacy is the ability to use digital tools effectively and in accordance with their purpose. In addition, in an environment where a lot of inaccurate information is shared, it is necessary to be able to recognize this and to look critically at the information obtained."*

Opinions on the purposes of using digital tools in the classroom environment are shown in Table 3. When reviewing Table 3, it is evident that the predominant opinions on the purposes of using digital tools in the classroom environment include attracting students' attention, appealing to different senses, and using time effectively.

Statements regarding diversifying learning environments and serving as a role model in using digital tools are less frequently mentioned. Below are some statements from classroom teachers expressing their opinions on the purposes of using digital tools in the classroom environment, presented in code order.

S3: *"The most important reason for using digital tools in the classroom is my desire to be the right role model for today's children to use digital tools."*
S27: *"When I teach a lesson using digital tools, it attracts students' attention and they listen better."*
S38: *"I think I save time when I use digital tools effectively in the classroom. The learning environment is enriched in the learning-teaching process and I can appeal to different senses of my students."*

Opinions on the problems encountered in the use of digital tools in the classroom environment and their solutions are shown in Table 4. When examining Table 4, it is evident that the prevalent opinions on the problems encountered

**Table 4.** Opinions on the problems encountered in the use of digital tools in the classroom environment and their solutions.

| Theme | Subthemes | Frequency | % |
|---|---|---|---|
| Opinions on problems encountered in the use of digital tools in the classroom environment and their solutions | Internet disconnection | 10 | 14.29 |
| | Technical support request<br>Power cut do nothing | 7 | 10 |
| | Software problem application update | 23 | 32.86 |
| | Computer freeze<br>Closing and opening operation is in progress. | 20 | 28.57 |
| | Not encountering problems | 10 | 14.29 |

*Participants may have more than one opinion.

**Table 5.** Opinions on what can be done to support digital literacy in the education system.

| Theme | Subthemes | Frequency | % |
|---|---|---|---|
| Opinions on what can be done to support digital literacy in the education system | Teachers development should be supported | 40 | 28.57 |
| | Technology infrastructure and equipment in education should be strengthened | 40 | 28.57 |
| | Applied digital learning environments should be created | 35 | 25 |
| | Current and adequate e-contents should be created | 20 | 14.29 |
| | Parents should be informed | 5 | 3.57 |

*Participants may have more than one opinion.

in the use of digital tools in the classroom environment and their solutions include software issues, updating applications, rebooting the computer when frozen, seeking technical support for internet disconnections, and experiencing no problems. The perspective of taking no action during a power outage is less frequently mentioned. Below are some statements from classroom teachers expressing their opinions on the problems encountered in the use of digital tools in the classroom environment and their solutions, presented in code order.

S11: *"I usually have the problem of computer freezing. When more than one application is open, the screen image freezes. I turn my computer off and on again to solve the problem."*
S29: *"The most common problem I encounter while using digital tools in the classroom is the freezing of the smart board. I update the application to solve this problem."*
S40: *"I do not have any problems when I use digital tools in the classroom. Our tools are checked regularly. There is no internet infrastructure problem. Our school uses a generator. I consider myself and my students lucky in this regard."*

Opinions on what can be done to support digital literacy in the education system are shown in Table 5. When Table 5 is examined, it is observed that the predominant opinions on how to support digital literacy in the education system include supporting the professional development of teachers, enhancing the technological infrastructure and equipment in education, and establishing applied digital learning environments. The perspectives advocating for the creation of up-to-date and sufficient e-content, as well as informing parents, are less frequently mentioned. Below are some statements from classroom teachers expressing their opinions on what can be done to support digital literacy in the education system, presented in code order.

S1: *"First of all, the development of teachers should be supported for the development of this process and the infrastructure of technological products used in education should be provided and hardware problems should not be experienced."*
S12: *"Teachers' development should be supported and a solid and strong technological infrastructure should be created."*
S26: *"Teachers who use digital tools in the classroom should be developed, parents who support them should be informed, technological problems in schools should be eliminated, applied digital learning environments should be created."*

## CONCLUSIONS AND RECOMMENDATIONS

Individuals who frequently engage with the Internet and the digital world need to possess digital literacy skills to comprehend and interpret digital environments accurately. This is because digital literacy skills enable them to effectively utilize digital tools, create content, and engage

with a broader audience. Teachers possessing digital literacy skills are the most crucial factor for future generations to access information using digital tools (Metin Taş, 2019).

As a result of the research conducted to examine the perceptions of classroom teachers about their own digital literacy, sub-themes such as using digital tools for their intended purpose, accessing information using digital tools, producing digital content, recognizing the risks of digital environments, critically evaluating information in the digital environment, and sharing digital content were identified in alignment with the opinions of classroom teachers regarding the definition of digital literacy.

The opinions of classroom teachers regarding the definition of digital literacy are akin to the definitions put forth by Karabacak and Sezgin (2019), Özerbaş and Kuralbayeva (2018), Pala and Başıbüyük (2020), and UNESCO (2018).

Teachers' perspectives on the purposes of utilizing digital tools in the classroom environment align with serving as role models to capture students' attention, appealing to various senses, maximizing time efficiency, diversifying learning environments, and leveraging digital tools, which resonate with findings from studies highlighting the benefits of digital tools (Türe, 2021; Robin, 2008).

Regarding the problems encountered in the use of digital tools in the classroom environment and their solutions, participants highlighted updating applications to address software issues, rebooting computers in case of freezing, and seeking technical support for internet disconnections. To support digital literacy in the education system, they underscored the importance of supporting teachers' professional development, enhancing technological infrastructure and hardware in education, and implementing applied digital learning environments. They emphasized the necessity of digitalization and teachers' positive attitudes toward innovations for educational realization, stressing the importance of teachers staying abreast of and adapting to developments and innovations in the field of education. Due to the significance of digital literacy skills, it is crucial for classroom teachers to integrate digital tools into their lessons, aligning their usage with lesson objectives, and to enhance teachers' digital literacy levels.

## CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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