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**Opinions of School Administrators and Teachers Regarding Digital Content  
and Skill-Assisted Transformation Targets in Learning Process\***

**Öğrenme Süreçlerinde Dijital İçerik ve Beceri Destekli Dönüşüm Hedefleri  
Hakkında Okul Yöneticilerinin ve Öğretmenlerinin Görüşleri**

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**ABSTRACT**

This article was produced from a qualitative study conducted to gather the opinions of school administrators and teachers about "Digital content and skill-assisted transformation targets in learning processes", which is one of the objectives of MEB 2023 Education Vision. Seven school administrators, three assistant managers and 10 teachers were asked to answer the following questions: 1. What is the opinions of school administrators and teachers about digital content and skill-assisted transformation targets in learning processes? 2. What is the opinions of school administrators and teachers about their readiness for digital leadership? 3. What is the opinions of school administrators and teachers about the applicability of these goals in their schools? The study shows that the participants agreed that digitalization leads to easy access to information, personal development, and equal opportunities in education, and that the use of digital materials facilitates learning. However, the study also revealed a lack of technological infrastructure in existing schools, that school leaders lack technology leadership, and that time constraints and parents' indifference were seen as obstacles in reaching the targets. With this study, the observations and experiences of school administrators and teachers in the process of creating digital education and training culture can be a guide to support personal development of all educators as well as a source for original research topics.

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**Anahtar kelimeler:**

Teknoloji liderliği, dijital içerik, teknoloji okuryazarlığı.

**ÖZ**

Bu çalışma, 2023 Eğitim Vizyonu hedeflerinden olan, "öğrenme süreçlerinde dijital içerik ve beceri destekli dönüşüm hedefleri" hakkında okul yöneticileri ve öğretmenlerin görüşlerini almak amacıyla yapılan bir nitel çalışmadır. Katılımcılar, İstanbul ili ilköğretim, ortaöğretim ve lise düzeyinde bulunan okullardan gönüllülük esasına göre seçilmiş yedi okul yöneticisi, üç yönetici yardımcısı ve on sınıf öğretmenidir. Çalışmanın amacına ulaşmak üzere şu sorulara cevap aranmıştır: 1. Okul yöneticileri ve öğretmenlerin öğrenme süreçlerinde dijital içerik ve beceri destekli dönüşüm hedefleri hakkındaki görüşleri nelerdir? 2.Okul yöneticileri ve öğretmenlerin kendilerinden beklenen dijital liderliğe hazır bulunuşlukları hakkındaki görüşleri nelerdir? 3.Okul yöneticileri ve öğretmenlerin, okullarında bu hedeflerin uygulanabilirliğine ilişkin görüşleri nelerdir? Çalışmada, teknolojinin; bilgiye kolay erişimi sağlamasıyla kişisel gelişime olumlu katkıda bulunacağı, eğitimde fırsat eşitliğine olanak yaratacağı, dijital görsellerle öğrenmeyi kolaylaştıracağı, zamandan ve malzemedan tasarruf sağlayacağı konusunda olumlu görüşler ortaya konulmuştur. Ancak mevcut okullarda görülen alt yapı eksikliği, okul liderlerinin teknoloji liderliği yetersizliği, öğretmen tembelliği zaman kısıtlılığı ve velilerin ilgisizliği bu hedeflere ulaşmada engeller olarak saptanmıştır. Bu çalışma ile, okul yöneticileri ve öğretmenlerin dijital eğitim ve öğretim kültürü yaratma sürecindeki gözlemleri ve deneyimleri, tüm eğitimcilere kişisel gelişimlerini desteklemeye yönelik bir rehber, aynı zamanda özgün araştırma konularına bir kaynak olabilecektir.

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**Introduction**

Today, the rapid development of technology has led to significant changes in organizational structures, processes, values, beliefs and systems. The effects of this development and change are increasingly being felt in education, as they have been in social, economic and cultural fields. According to Alkan (2011), the increase in transactions and the abundance of information brought about by competition between institutions and the rapid increase in production makes the speed, reliability and versatility of technology an important part of our lives. Education and technology are the two main factors that play a role in making the lives of individuals more effective. The individual uses these two main elements as a tool to dominate his natural and social environment. Education enables the individual to reveal the innate powers and abilities and to develop and grow a stronger, maturing and constructive life. The development of technology and the necessity of digital literacy, the globalization of education, the change and transformation in education policies have caused the increase of pressures in education and the increase of expectations from the school, pushing educational institutions into a ruthless competition. According to Weber (2006), the integration of schools with technology is an important change in education. Doğan and Seferoğlu (2015) expressed the effect of integration of education and technology on practitioners "The use of active employees in education and training has differentiated classical teaching practices and the roles of partners in the classroom."

According to Parlak (2017), the internet revolution and the rapid spread of PC ownership have created a "digital revolution" in education, as in many other fields. Education in the digital age offers opportunities and chances that have never been seen before. According to Jones (2011), we can now imagine a world where all people will be "connected". Whenever we want, we will be able to communicate with everyone and be influenced by them. We will even be able to learn and teach interactively. Through these universal connections, we will develop, learn, educate, sell or buy. In this way, we will be connected to each other with our machines. In other words, the concept of "far" on the Earth, where we can access our machines such as computers, security equipment, transportation vehicles and other smart systems from distances, has never been this "close" to human beings. Again, according to Parlak (2017) stated that sensitive societies and developed countries put digital education at the center of their education policies, the youth defined as "Generation Z" are active individuals of the digital age, and the processes of realizing the digital revolution of societies that have completed the transition from the industrial society to information society are more natural. He states that it is carried out on easy grounds, but developing countries have not made sufficient progress in these processes yet.

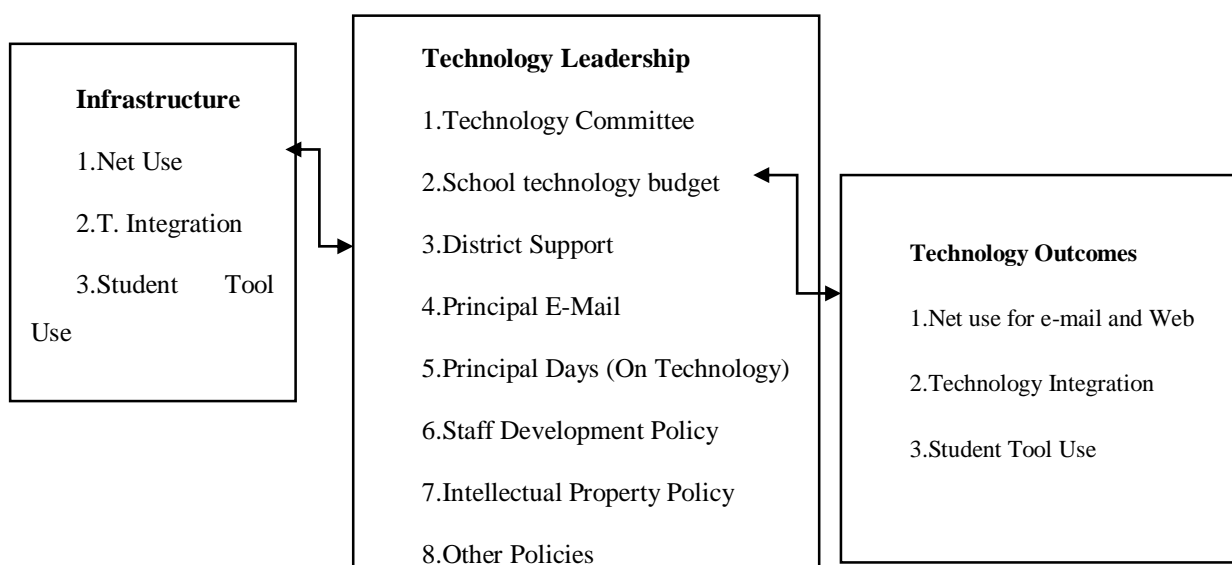
### **Statement of the Problem**

Technological developments and the necessity of digital literacy, the globalization of education, changes and transformations in education policies have increased the pressures on education and the expectations of schools, resulting in ruthless competition among educational institutions. This situation leads the way for the development of new approaches to education and increases the complexity of the roles of school administrators and teachers. In 21. century organizations with strong economies recognized the importance of technology to increase their competitiveness with other countries. For this purpose, in order to have this power, they direct their societies to become information literate. With this understanding, digital managers and leaders who will manage the transformation and development in all units of national organizations in the 21st century have become more important. According to Alkan (2011), in this age determinations of societies level of development are scientific research and the result of technological products that they have produced.

More than half the world's population can be seen as internet users and even school age children are now smartphone users. Given that school age children can exhibit negative behavior when influenced by certain practices -such as internet addiction, child porn and sexual abuse -in which their perceptions are directed, the need for digital leadership is a must. That is why developed countries have begun to give the necessary importance to digitalization and are integrating technology into their education programs to increase the technology literacy of their society. In 1974, Paul Zurkowski, President of the American Information Industry Association, used information literacy for the first time in a document for the National Commission for Library and Information Science (NCLIS). He has proposed that individuals who are able to use information resources as information literates, they can resolve the problems that they encountered by using various information tools. According to Polat (2005), in this notion,

information literacy is expressed as the ability to access information and to benefit from the information. An individual who acquires information literacy will also learn how to learn information and knowledge that is being able to obtain required information, to know the methods and practices and to deal with problems. The notion of educational technology, which was first used in 1960, emerged with the inclusion of technology in educational applications. Previously, the notion of educational technology was expressed in different terms, for example, assistive tools, audiovisual tools, and teaching tools. According to Alkan (2011), “Educational technology has the most important role in the design, implementation, evaluation and development of learning and teacher.” Increases the quality of education by using a variety of teaching materials and techniques. Contributes to the emergence and development of students' creativity by making use of various learning environments. Enables personal learning through educational technology-based educational environments. Ensures the establishment of a modest education system in line with the strategies of national education. As Afshari, Bakar, Luan, Samah & Fooi (2009) expressed the ability of school principals to be able to use technology is extremely important in terms of achieving digital leadership in the three main applications; administrative practice, instructional practice and learning practices in education. Integration of technology and education which affects all parts of daily life makes it indispensable for school principals and teachers to have the necessary qualifications such as adapting the technology and skill-based transition. According to Yu and Durrington (2006), the positive developments in the current age of technology are the excellent technological products produced for educational purposes and the additional role given to school administrators to efficiently evaluate these new instructional products to use in their institutions. This situation highlights the importance of school leaders being role models for their students as good technology users. Technology leadership, introduced by Anderson and Dexter (2005), defines increasing efficiency in education through the use of communication technologies and information. Technology leadership in a school means making effective organizational decisions, policies, or actions. The use of information technology in this environment relates to the actions associated with the effective and efficient use of digital products by all school stakeholders. The use of information technology in a school involves also the budget, district support, grants, intellectual property policy, principal days (on technology), principal E-mail, a staff development policy and a technology committee.

**Figure 1.** Technology leadership model



When the elements outlined in the proposed technology leadership scheme are adapted to a school's operation, a number of technology-based outputs are obtained. These outputs, in parallel with the use of computers by school teachers and students for communication and institution networks for accessing information, integrating technology into the curriculum, and using scientific computer-based products that students can benefit from such as report preparation and simulations, for example in science or social sciences. Along with the development of educational technology, standards have been established for what school leaders, especially school principals, need to know and what to do. NETS-A (ISTE, 2002) standards is one of the latest recommendations. NETS- A standards have been developed by reviewing, interpreting and monitoring it by an advisory board, with input from experts and partner organizations. Initially named "Technology Standards for School Administrators" (TSSA) and launched in 2001, ISTE was integrated into NETS standards in 2002. NETS-A standards, which have been widely introduced since 2002, are divided into six sections as follows

**1-Leadership and vision:** This explains that technology leaders need to develop a shared vision for technology across the school and ensure the necessary resources, coordination, and climate.

**2-Learning and teaching:** This emphasizes cooperation, higher thinking and the creation of learning environments that support other student-centered methods.

**2-Efficiency and professional practice:** This is the need to evaluate the role of technology leaders in the academic and administrative uses of technology and to make decisions from this data.

**4-Support, management and operations:** Personnel planning of technology developers.

**5-Measurement and evaluation:** This covers various monitoring functions, but emphasizes technology-based techniques for evaluation and accountability.

**6-Social, legitimate and ethical issues:** This states that education leaders should work to ensure compliance with social, legitimate and ethical practices related to access equality, user security and technology use (Anderson & Dexter, 2005). As can be seen from the above definitions, NETS-A standards also characterize school leaders as leaders who will realize digital transformation in education. According to Taşkıran (2017), with the inclusion of the internet in life, democratization in access to information, electronic encyclopedias, dictionaries, digital private and public libraries, digital books, articles and archives, social networks, blogs and web pages are now a click away. This digital transformation is radically changing the access and sharing of information. While the digital transformation in the world is happening at this speed,

schools have difficulty keeping up with this speed. Considering this change, the 2023 Education Vision attaches importance to students' evaluation of information technologies as means of "producing", "providing solutions to problems" and "making their dreams come true" by using digital in education in order to raise students equipped with the skills required by the age. With this perspective, a project called "Digital Content and Skills Supported Transformation in Learning Processes" has been put forward. Consisting of two general goals and eleven objectives, the project focuses on technology, digital and digital content. According to Taşkıran (2016), creating and using digital content effectively and training teachers who have acquired a development culture are the key points to achieve other goals. Because digitalization is a product of the rapid development of information technologies, it affects humanity in all areas and even forces individuals to learn what is happening in the society and the world in which they live. In this transformation process in which the transition from the industrial age to the digital age is taking place, the question of how education-training institutions should approach this change and how should the necessary adaptation be achieved is becoming increasingly important. As a natural result of digitalization in daily life, the expectation of digital transformation in education is inevitable.

According to Alkan (2011), the benefits of digitization for education:

- Saves space and time in accessing information
- Provides primary source information.
- Ensures equality of opportunity with everyone benefiting from high standards of educational opportunities throughout the country
- Increases the quality of education by using a variety of teaching materials and techniques.
- Contributes to the emergence and development of students' creativity by making use of various learning environments.
- Enables personal learning through educational technology-based educational environments.
- Ensures the establishment of a modest education system in line with the strategies of national education.

The goals and objectives of the "Digital Content and Skill-assisted Transformation Targets in Learning Processes" in the 2023 Education Vision Document are provided in the table below:

### **Goal 1.**

- a) A digital education and training content development system will be established with the participation of different actors and institutions in the Turkish Education System.
- b) A National Digital Content Archive will be established to present digital education and training materials to ensure quality standards.

### **Goal 1. Objective**

1.A national digital content archive will be created to support all possible usage scenarios and content norms and quality standards.

2.A nationwide content development system will be established to support content diversity.

3.Teachers who have acquired a culture of using and developing digital content effectively will be trained and this culture will be spread in schools.

4.Digital materials and printed materials will be associated and spread, teachers will be provided with support materials for their effective use and digital materials will be used as main teaching materials.

5.Using digital contents, platforms will be provided where personalized learning experiences can be prepared.

6.A new generation of digital measurement materials supporting metacognitive skills will be developed to enable students to achieve the desired results in international exams such as PISA.

## **Goal 2.**

a) Content will be developed for the development of digital skills and encouraged by supporting leading teachers who develop digital learning materials for teacher training.

b) Tools will be developed to measure and evaluate learning in these environments depending on the prevalence of the use of digital media and materials in learning.

## **Goal 2. Objectives**

1.Access and acquisition of concepts such as secure internet, cyber security, cyber bullying and data security, which have become required of primary school courses, will be monitored and necessary improvements will be made.

2.Face-to-face in-service trainings will be organized for the teaching of algorithmic thinking of classroom teachers in a computer-free environment.

3.Coding and 3D design activities will be carried out with our students in order to provide them with production skills with informatics.

4.Content videos and online workshops will be developed to help our teachers improve themselves in digital education.

5.Face-to-face workshops will be given to teacher's interdisciplinary fields such as 3D designing, mathematics, science, physics, chemistry, biology, Turkish, social studies and geography. The purpose of the targets set by the Ministry and put into practice is to ensure equal opportunity of learning and teaching for students and teachers living anywhere in Turkey and for students to learn to cope in the wider world beyond their classroom walls (Milli Eğitim Bakanlığı, 2018).

As can be seen from the above explanations, the 2023 Education Vision Document aims to

redesign the Turkish Education System to meet the needs of the digital world. Because, studies conducted in Turkey shows that it is difficult to say educational technology in schools is effectively used (Altun, 2009; Duman, 2007; Kuzu, 2007; Akbaba-Altun, 2004; Şişman-Esra,2010). Sağlam, Özüdoğru and Çıray (2011) 's research also finds out that a large proportion of the population in Turkey is school-age children. However, the success of Turkish students in international competitions such as PISA (Program for International Student Assessment), which aims to determine language, science, mathematics, problem solving, thinking and interpretation skills, is quite low. Also, according to Çavaş (2005), the "rapid learning" achieved through technology cannot be utilized because the possibilities of technology are not known enough, sufficient number of expert users cannot be trained and applications cannot be widespread with some obstacles. In order to new grown generation in training programs to adapt the information society in Turkey, science and basic competencies in technology, such as information and communication skills and the use of technology should be considered as necessary skills. As can be seen from these explanations, it is revealed that the technology, which is one of the important inventions of the age we are in, cannot be used sufficiently in the Turkish Education System. Although there are a certain number of studies on the necessity of using technology in education in the studies conducted in the literature, there is no study that takes into account the opinions of school administrators and teachers on this issue. According to Parlak (2017), "It takes years to compensate for the smallest mistake made in educational environments. Therefore, all configurations of teaching and learning in the education system should be planned and prepared with great care. Education is not only a structure in which certain behaviors are acquired. But also a set of systems in which teaching experiences are classified, organized and concrete relationships between them are determined and implemented in accordance with a specific plan. " Therefore, this study will be made in education embodiments, the instructor reveals the necessity of the views of school administration sand teachers with real practitioners.

In short, since the achievement of the 2023 Education Vision Document is related to the ability of education practitioners to use technology correctly in schools and classrooms, to prepare digital content and to be a role model for their students, it is important to examine the opinions of administrators and teachers during the implementation of the project in schools. Undoubtedly, the realization of the objectives of the 2023 Education Vision Document is possible with the support of teachers and administrators working in the current system. This is primarily dependent on teachers and administrators' understanding of these goals and having positive views in line with these goals. Therefore, this study is designed to evaluate the views of school administrators and teachers on digital content and skills-aided transformation goals in learning processes, the key question of this research is "What are the Opinions of School Administrators and Teachers About Digital Content and Skill Supported Transformation Targets in Learning Processes?"

### **Purpose of the Study**

The aim of the study is to get the opinions of school administrators and teachers about "Digital Content and Skill Supported Transformation Targets in Learning Processes" in the 2023



Education Vision Document. In order to achieve this goal, the study searched to answer the questions below.

- 1.What is the opinions of school administrators and teachers about digital content and skill supported transformation targets in learning processes?
- 2.What is the opinions of school administrators and teachers about their readiness for digital leadership?
- 3.What is the opinions of school administrators and teachers about the applicability of these objectives in their schools?

## **Method**

### **Research Model**

A qualitative research method was used in this study in order to get the in-depth views of school principals and teachers about digital content and skill supported transformation targets in learning processes. According to Şimşek and Yıldırım (2018), qualitative research provides a descriptive and realistic picture to the reader on the subject under investigation. In qualitative research, it is very important that the data obtained by the researcher be detailed and in-depth and that the views and experiences of the participants are directly presented.

According to Wolcott (1992), qualitative research is formed by a long-term and intense interaction process with a segment of a social life or particular area. These processes reflect the daily lives of individuals, groups, communities or organizations. The aim of the researcher is to look holistically at the characteristics of the environment in which she/he studies. With this systematic, inclusive and integrated perspective, the research philosophy, regulations, confidential or explicit rules are gathered from the participants with a very careful and empathic approach, and the main themes and expressions obtained from the participants is evaluated in accordance with the naturalness of the data (Quoted from Wolcott: Akbaba & Ersoy, 2016).

In this study, face to face interviews were conducted through reflective listening. Interview forms were prepared with semi-structured questions. The case study design, which is a qualitative research design, was used. Some participants were chosen using the snowball sampling method. According to Patton (1998), snowball sampling is a very effective method for selecting individuals who may provide data related to the researcher's problem. The researcher may have difficulties in obtaining some information. The researcher asked the participants, who they can suggest to talk with in this process in this process, beginning with the question, a working group develops that grows like a snowball. In addition, according to Şimşek and Yıldırım (2018), interviews were conducted with school administrators and teachers from different socio-economic regions and at different educational levels by using the maximum diversity sampling method. The aim of the study group, which is formed according to maximum diversity, is to try to determine whether there are common phenomena among the various situations and to show the different dimensions of the problem according to the diversity that occurs.

## Participants

Participants of the study were school volunteer participants, consisted of seven managers, three assistant managers, and ten teachers from elementary, middle and high schools in Istanbul. The characteristics of the participants and schools are shown in the tables below.

**Table 1.** Status of Participating Schools and Data on School Teachers

Name and Level of School	Number of Students	Teacher Names	Teacher Gender	Years of Experience	Teacher's Subject
A Primary School	1500	Burcu	Female	Over 16 Years	English
B Primary School	1500	Hakan	Male	Over 16 Years	Class Teacher
B Primary School	1500	Serkan	Male	Over 16 Years	Class Teacher
C High School	600	Özlem	Female	Over 16 Years	Physics
D Middle School	1500	Uğur	Male	Over 16 Years	English
E Primary School	1600	Kadriye	Female	20 Years	Class Teacher
E Primary School	1600	Şebnem	Female	23 Years	Class Teacher
E Primary School	1600	Ayşe	Female	40 Years	Class Teacher
F High School	1250	Pınar	Female	6-9 Years	Geography
F High School	1250	Gülben	Female	6-9 Years	Philosophy

**Table 2.** Status of Participating Schools and Data on Administrators

Name and Level of School	Number of Students	Teacher Name	Teacher Gender	Years of Experience	Teacher's Subject
G Primary	1000	Gül	Female	Over 16 Years	Preschool Master
H Primary	1500	Mert	Male	10-15 Years	English
I Middle	639	Nuri	Male	40 Years	Degree
J Primary	1500	Kemal	Male	Over 16 Years	Master
K High School	1600	Lale	Female	8 Years	Master
K High School	1600	Dursun	Male	Over 16 Years	Office Management

K High School	1600	Figen	Female	10-15 Years	English
L High School	600	Ayhan	Male	Over 16 Years	Accounting Master
L High School	600	Ayten	Female	Over 16 Years	Master
M High School	610	Handan	Female	Over 16 Years	Degree

## Data Collection

The study was started by first reviewing the related literature. In this study, as a data collection method, the interview technique was used to get the opinions of the participants about digital content and skill supported transformation targets in learning processes. For this purpose, a semi-structured interview form, which is a qualitative data collection tool, was prepared by taking an expert opinion. In the interview form, invitation letters prepared by the researcher were sent to the participants explaining the purpose of the research and asking whether the participants would voluntarily agree to being interviewed. Three questions were asked to the participants in form. 1- What is your opinion on the objectives of digital content and skill assisted transformation targets in learning processes? 2- What is your opinion on the readiness of school administrators and teachers for the digital leadership expected from them? 3-What is your opinion on the applicability of these objectives? After receiving consent of the school administrators and teachers to being interviewed, an agreement was reached by e-mail on the date and time of the interview or telephone interview. Interviews were conducted at the participants' own premises. At the beginning of the interview, a short oral explanation was given to the participants. On the day of the interview, the participants' consent was recorded. The data was then transcribed. The prepared records were shared with the relevant participants for confirmation purposes and their approval was obtained. Participants were given pseudonyms to protect their identities. During the study, the opinions of the participants were taken in 45-60 minutes, as stated in the interview form. The study started on 3 January 2019 and ended on 31 March 2019.

## Interpretation and Analysis of Data

The data obtained in the study was analyzed by content analysis and presented descriptively. On the basis of the qualitative data, there are meticulously structured definitions and detailed explanations of the process. Miles and Huberman (1984) emphasize the attractiveness of qualitative data. In qualitative research, by being able to see how events affect each other and to see them in chronological order, the researcher can make effective explanations. Qualitative findings may lead the researcher to unexpected new findings. Through content analysis, it is hoped to come to descriptive concepts and relationships through a deep processing of the data, revealing the content of the data. The process of analysis in this study is based on eight steps referred from Şimşek and Yıldırım (2018): a) Preparation of research questions, b) Development of sub-problems of the research, c) Determination of the analysis unit, d) Determination of the situation to be studied, e) Selection of individuals to participate in the

research, f) Collection of data and association of the collected data with propositions or sub-problems, g) Analysis of data, and interpretation (h) Reporting the work.

Problems were identified and units of analysis were determined, limitations were set on the conditions to be studied and the participants were selected. To ensure reliability of the study, the interviews were voice recorded and combined with results. It is possible for the interviewer to misinterpret participants' responses (Şimşek & Yıldırım, 2018). For this reason, the researcher took written notes during all the interviews and the accuracy of them was confirmed by the participants. Throughout the analytical process, excerpts were selected from the transcripts to ensure participants' voices and words were used to illustrate the views of school principals and teachers on the objectives of digital content and skill assisted transformation targets in learning processes. After careful, line by line reading of the interview texts, the data was coded. Having categorized the data and codes, themes were created and examined in relation to the pre-identified sub-themes and their relation to the parent themes was explained. The data was arranged in a table format and the participants' views on the themes were quoted. Maxwell recommends the use of short anecdotes to reflect interesting ideas about the theme from the participant's point of view (Maxwell, 1996). The researcher prepared the data in a sufficient amount of time. After the analysis, the data was transformed into a report. (Matthew B.Miles, 1984; Maxwell, 1996).

According to Lincoln and Guba (1986), there are a number of strategies that the researcher can use to achieve credibility, for example, long-term interaction, depth-based data acquisition, diversification, competent review and participatory attestation. The analyses were shared with the participants in order to confirm accuracy of the representation of their perceptions and thoughts and to ensure they felt they had adequately expressed their opinions. The researcher paid attention to the cited processes regarding the credibility of the study. During the interviews, the researcher was careful to remain impartial and to encourage conversation using the reflective listening method.

## **Findings**

What is the opinion of school administrators and teachers about digital content and skills assisted transformation targets in learning processes? Following the content analysis, three main themes emerged: 1-Expectations of teachers and managers from the goals of the digital content and skill-assisted transformation targets project, 2-Technology leadership during the process of the digital content and skill-assisted transformation targets project, 3-Challenges that may be encountered during the process achieving the goals of the digital content and skill-assisted transformation targets project.

### **Findings Related to the First Sub-Problem**

School principals and teachers were asked about their opinions about digital content and skills assisted transformation targets in learning processes. With the data obtained, coded themes and sub-themes were created.

The first theme was the positive expectations of school principals and teachers of the digital content and skill-assisted transformation targets in learning processes project contained in the 2023 educational vision document. Classified into three sub-themes, these expectations provide 1) Individual development, 2) Easy access to information, 3) Savings in time and consumables. The findings of each group are explained below.

### **Individual Development**

All participants agree on the opinion that digitalization would provide individual development. Participants stated that while using digital content, teachers and students would develop their skills in research, thinking and use of technology, they would read new information, follow daily developments and stay up to date. According to Ayten, school leaders need to be open to innovation and change.

*The teacher should know how to develop and produce materials in digital environment. This is also very important for the personal development of the teacher.*

Serkan, also emphasized that learning with three-dimensional materials improves creativity and that innovative projects will provide the opportunity for personal development.

*Things that are visual are more important because they are more remarkable. Visual skills and 3D usage will make a big difference in the personal development of children in education and training. In addition, when we are as teachers can research this information and we can access more information also develop ourselves.*

### **Access to Information**

All participants agreed that digitalization will facilitate access to information. Participants supported the idea that easy access to information through the internet and digital contents will contribute to learning and provide equality of opportunity for all individuals. Nuri, has committed his school to change and said the following about digitalization:

*We have just begun this goal, but the world has already gone digital. We have to make good use of these possibilities. The interactive boards in our classroom make the life of the teacher and the parent easier and enable the students to learn better. The teacher can develop and use digital educational videos.*

Almost all the participants stated that learning with visuals aids retention and creates enthusiasm for learning. Uğur emphasized that learning with technology facilitates access to information:

*With the use of technology, teachers will have easy access to information. In addition, the use of technology will provide equal opportunities in education, and even the student in the most remote school in the country will be able to receive the information he wants from his computer.*

Although one of ten teachers stated that using digital content could deter students from researching in hard copy books. In addition, two school administrators pointed out that keeping a check on the kind of information students are accessing may be a problem.

## **Savings in Time and Consumables**

All participants stated that they will save time and consumables through digitalization. In particular, high school teachers and administrators stated that thanks to digitization, they saved time and consumables, and gave their students a truly eco-friendly role. Four school administrators stated that thanks to digitalization, they benefited from digitalization at a high level as they no longer consumed much paper and they successfully implemented the Zero Waste Project. Ayten explained his opinion as follows:

*If the teacher has the duty to teach the student to learn, he or she must first use ICT perfectly. Reflective thinking develops through the digital environment. We should make every student the maximum beneficiary of technology, for example, distance education. We should even do exams digitally. We call it a zero-waste project, but we do a paper test. All hardware and usage should be digital. It will save both material and time.*

## **Findings Related to the Second Sub-Problem**

For the second Sub-problem, school administrators and teachers were asked the question "What is your opinion about your readiness for technology leadership in the process of digital content and skill assisted transformation targets?" Themes and sub themes have been created according to collected data under the category of technology leadership: 1) manager readiness in technology leadership, and 2) teacher readiness in technology leadership. The findings of each sub-theme are explained below.

### **Executive readiness in technology leadership**

The first sub-theme revealed the importance of being a good technology leader in order to achieve the goals of the project.

All of the school administrators stated that they felt themselves ready for digital leadership because they use the education portals as a necessity and because it is time -saving and eased their workloads. Ayhan stated that education leaders are responsible for raising students in accordance with the requirements of 21st century skills. In order for an educational leader to prepare digital content, she/he must first demonstrate both the ability to make maximum use of the technology and the competence of being a good technology leader. According to Ayhan readiness for technology leadership in the 21st century is a necessity.

*I use digital content to apply many things in my school, our education is not behind the times at the moment. However, practitioners' lack of knowledge and differences in education creates failures.*

Meanwhile, Kemal stated that he did not see himself as a technology leader because his school was in a very disadvantaged area, with a lack of technological equipment and poor communication between parents and teachers, and teachers who are not very interested in their professions. Most of the participating school administrators hold Masters' degrees and see themselves as technology leaders. In addition, school administrators stated that they always

volunteer to support their teachers in this regard.

### **Teacher readiness in technology leadership**

The majority of teachers felt it was difficult to keep up with the continuous changes and innovations in technology and did not feel ready for technology leadership. The teachers stated that they attended the courses from time to time but found that the courses were often held at inconvenient times and that the trainers themselves did not have adequate knowledge of the field and needed mentoring and technical support. Many of the teachers stated that they were afraid to use interactive boards because they were not fully trained. Only three teachers felt that they were familiar with all the innovations and said that they prepare and fully implement materials with the students in their classrooms. These teachers have higher education levels than their colleagues. They emphasize that they make materials by using visuals and digital content and they deal with subjects through digital visuals. Uğur stated that his colleagues are inadequate and unready:

*I don't think teachers and administrators are fully prepared for technology leadership. There should be certificate programs in universities and all educators should be given compulsory education. One of the most important characteristics of successful teachers in the 21st century is capability of dealing with these issues. The teacher should be a role model technology user for the students. Nowadays, every family has computers. Students are using them faster than us and we should not be less capable than them.*

Handan emphasized the lack of performance of the teacher:

*One of the teachers is an engineer who couldn't find a job in any other sector, in which case they have nothing to give students. It is useful to consider readiness in two ways. Mentally and technically. I'm sure even they are technically but not mentally ready because there are teachers who do not make enough use of the smart boards in our school. They are not open for innovations and they seem like they do not consider being a teacher as a job. Most of them can learn how to use technology but personal improvement is very important.*

### **Findings Related to the Third Sub-Problem**

For the third sub-problem, school administrators and teachers were asked, "What is your opinion on the applicability of the digital content and skill-assisted transformation targets project? From this question, challenges that may be encountered in the process of the digital content and skill-assisted transformation targets in learning processes project emerged. Five sub-themes were classified: 1-Lack of technological infrastructure, 2-Lack of teachers' technology education, 3-Teacher inertia, 4-Parental indifference, and 5-Time limitations. The findings of each sub-theme are explained below.

#### **Lack of Technological Infrastructure**

It is important for students to have individual technology products in school as well as classroom technology equipment so that they can participate and make contributions to lessons on their personal computers as the course subjects are being taught. The scope of our study

includes well-equipped schools and disadvantaged schools. All of the teachers and school administrators who participated in the interview emphasized the importance of infrastructure. The existence of problems in technological infrastructure in some schools has been shown to be an obstacle to technology leadership. Kemal, the most troubled school administrator in the study as his school has no equipment, expressed his opinion on technological infrastructure as follows:

*This project cannot be started without good technological equipment and without teacher training. For example, my school has no infrastructure. I don't have smart boards nor computers in my classes. Parents and children are very far away. The project's current status is not realistic in Turkey. I wish it was.*

Hakan also stated that it would not be possible to reach these targets without providing technological infrastructure:

*If this project is expected to be as successful as in European schools, the school equipment must be as in Europe. There is a smart board in the classrooms, and every student has his eye on it, but every child should have a computer in front of him so that he can produce ideas. Infrastructure and parents should be involved in providing school equipment and an allowance should be allocated.*

In addition, teachers stated the importance of technology rooms and technical staff in schools for the implementation of the project and each child should have their own computer to do research.

### **Lack of Technological Education**

School administrators and teachers who participated in the study agreed that technology is developing rapidly and that the internet facilitates access to information. In addition, participants stated that digital content, especially visuals, contributed to student learning is very important. However, in order to benefit from the opportunities provided by technology, they emphasized the necessity of access to personal equipment and the need to be able to keep up with the speed of change and development of technology. Seven of the teachers pointed out the inadequacy of the existing resources and stated that they were unable to achieve the desired goals in education because they are unable to take advantage of the opportunities created by technology. They stated that they need high quality, continuous training in order to address this problem. In addition, the quality of the training and the trainers' presentation techniques were considered important factors in learning. Kemal stated that the quality of the training and the selection of trainers are important

*We have received training for many years, but not very talented people gave lessons. I just remember training where I was impressed by the trainer. Therefore, the content of the training and the quality of the trainer is important. It shouldn't be done just for business.*

Teachers stated that because of the continuous development of technology, they always need technical training and updates and that they are unable to cope with technical failures. Therefore, they considered it important to have a technical expert in the school.



## Teacher Inertia

All of the school administrators stated that there is inertia among teachers. They believe many teachers do not see teaching as a profession, and that in particular, teachers at a certain age are not open to innovation, do not want to improve themselves, and therefore may have difficulty achieving the objectives of the project. It was also stated that some teachers did not make good use of smart boards in their classrooms, using them to watch movies unrelated to the lessons. In addition, some teachers were negligent in carrying out their duties by suggesting problems such as insufficient salaries or inequality in performance evaluation. School principal Nuri expressed his opinion on this subject as follows:

*It would be difficult to say that all my teachers are keen to take part in the project. For example, I participated in a presentation in the digital age as a manager. It gave me a lot of ideas. Change is a must. The 2023 Education Document points to what should be. We also need to be open to change and implement innovations. This is what the state offers. If we look at the education of the developed countries, we see we are closed to innovation. Hiding behind excuses damages education and harms the students.*

Dursun explained that transformation and development in schools would enable the teachers to perform their duties well and become active in the classroom:

*Project is very good. In 70's we were imagining about computers and 10 years later it was a indispensable part of our lives. I force some of my teachers to take courses from me or somewhere else. I am feeling positive about that project. We shouldn't be behind the current age. I have teachers who have smart boards but they don't use it or they use it outside of their purpose.*

## Parental Indifference

The participants stated that parental awareness of school life is important and it is also important to provide technology opportunities in the child's home and that parents' guidance is necessary in achieving these goals. The risks of technology in terms of the danger of digital cyber-attacks, cyber-bullying, child abuse and other possible risks should be noticed by parents. Furthermore, they stated that they expect financial support from parents in order to overcome the deficiencies in state funding especially in disadvantaged schools. The lack of parental cooperation in some schools has been an obstacle for the implementation of this project. One school principal and two teachers said that they had experienced difficulties in this regard, and did not receive enough support from parents. They emphasized that the parents were indifferent to the school which influences their children even in unnecessary situations. They also found that parents did not want to provide financial support to the school.

## Time Limitations

According to all the managers and teachers who participated in the study, it will not be possible to achieve the objectives of the project in a short time. It might take a long time for the relevant training to be given, have that training reinforced with practice and reflected in class.

## **Discussion and Conclusion**

The aim of this study was to get the opinions of school principals and teachers about the objectives of the 2023 Education Vision, which is digital content and skill assisted transformation targets in learning processes. For this purpose, firstly, a literature review of technology in education, digitalization concepts and the 2023 Education Vision Document was carried out. Interviews were conducted with school administrators and teachers in order to evaluate their opinions on the subject and the results of the interviews were grouped under three main themes.

The first sub-problem looked at the opinion of school administrators and teachers about digital content and skill-assisted transformation targets in learning processes project. In general, teachers and administrators have positive expectations of the digital content and skill assisted transformation targets project. According to the results of the study, participants felt the project can be very useful to teachers and students, can contribute to education, facilitate learning with easy access to information and at the same time create equal learning opportunities for teachers and students in every corner of the country. The expectations of all the participants in the study include the development of innovative and capable students who can produce their own materials with the help of digital content and meet the needs of the age. As. Negroponte (1995) emphasizes, digital production provides benefits such as flawless copies, reduction of costs by storing the obtained information in the digital cloud, searching, analyzing, correcting and improving on digitized information. It was the common opinion of the participants that individual development would improve positively with the use of digital content. The results of Çavaş's (2005) study are similar to our study where participants stated that students can easily access the information and skills they need by utilizing the digital content of the information store. According to Çavaş, the benefits of using technology in education include access to quality information from primary sources, equality of opportunity in learning, diversity of learning, creativity in the individual, personalized learning, and productive education. These statements are consistent with the themes of this study.

The second sub-problem of this study asked, "What is the opinion of school administrators and teachers about their readiness for digital leadership?" Participants pointed to the importance of technology leadership in the process of digital content and skill supported transformation targets in learning processes. Such views on the importance of technology leadership on school and student life are also evident in Anderson and Dexter's (2005) research on technology leadership. In their research, Anderson and Dexter found that providing technological infrastructure in a school is not enough and that technology leadership is necessary for the effective use of the technology in the school. This is consistent with our study. Technology requires access to the right information, the correct use of resources, time-saving use, and knowledge about how to take advantage of digital content. In addition to easy access to the right information, the correct use of information and the risks that may arise from careless use requires a student to be able to protect themselves. Therefore, the school leaders who are expected to assume the role of technology leaders should be sufficiently equipped. According to Bruce

(1997), it is the teacher's responsibility to train students perfectly. In the 21st Century, in order to train students in the necessary skills, teachers need to have skills such as accessing information, developing, using and controlling information. The results of our study are consistent with Bruce's study. In the study, the participant teachers stated that they knew that they should have these qualifications but they did not consider themselves sufficient yet. Therefore, they stated that they need quality and long-term in-service training. It may be possible to eliminate these deficiencies with quality and systematic courses. According to the goals of Vision 2023, it is assumed that students will be able to produce, develop solutions to problems and realize their dreams with the use of information technologies in the context of both the content and the quality of the process. According to Snavely and Cooper (1997), state that information literacy includes skills such as web literacy, computer and technology literacy, multimedia literacy, network literacy, media literacy, and interrogative literacy. The subject of this study is the use of technology in education for the development of students' technology literacy as envisaged by the Ministry of National Education's 2023 Education Vision Document. For this reason, it is important that technology leadership is expanded and teachers create digital content. This study found that school administrators made more effective use of technology. This may be due to the education level of managers. The teaching subjects and educational levels of the managers in the working group were higher than those of the participating teachers. Likewise, teachers who have a Masters' degree tend to be proficient in using technology and benefit very much from digital content. Similar to this study, Sincan & Aslan (2018), studied classroom and subject teachers and their technology leadership. They stated that higher the education level means more benefit from technology. Another study conducted by Irmak (2015) looked at technology leadership among school administrators and found that technology leadership roles were quite high. This can be interpreted as both the level of education and the fully digital development of the school. School administrators and teachers are expected to update themselves and complete their technological development and become good role models for their students. This study found that seven teachers were not inclined to innovation and technology. It is possible that teachers' contribution to their students is inadequate as today's students are children of the digital age, they are technology users and are often faster than their teachers in using technology. The administrators and some teachers emphasized that they do not fall behind this speed.

The third main theme asked the question "What is the opinion of school administrators and teachers about the applicability of these goals in their schools?" It emerged that there may be difficulties in the process of digital content and skill-assisted transformation targets.

This study determined that having a technological infrastructure is important if a school is to benefit from digitalization. Some schools lack the technology infrastructure. The research conducted by Hallinger and colleagues explains the responsibility of the school administrator to provide technological infrastructure. The allocation of technology and good communication with all stakeholders can effectively manage the change process (Hallinger & Heck, 1998; Leithwood & Riehl, 2003). Some teachers and administrators can easily meet the many needs of the school by approaching the school stakeholders, but others expect them from the state. The excuses

expressed by the administrators that the teachers who are afraid of development, innovation and change make some excuses and complain about inadequacies are consistent with Çavaş's research. Çavaş emphasized the transformational technology revealed that the opportunities of technology are not sufficiently realized and that an insufficient number of expert users are trained, and that some obstacles cannot be utilized due to the widespread use of applications (Çavaş, 2005). Şişman -Eren (2010) reached the following results in support of our study as a result of their examinations;

The primary problem faced by school administrators while creating technological infrastructure for the use of educational technologies is financial difficulties.

School administrators send their teachers to training in order to benefit from educational technologies appropriately.

School administrators provide their schools with educational technologies with financial resources they receive from parents. School-family unions are also generally aimed at providing financial resources.

According to Akbaba- Altun (2004), the problems expressed by school principals regarding information technology classes are as follows: lack of internet connection, malfunctions, lack of expert teachers and computers. In addition, since what the school principal will do is determined by the Ministry of National Education (MEB), they see their role as simply receiving incoming materials and keeping records. They do not feel sufficient in terms of information about the management and administration of IT classes, information on technical troubleshooting and knowing computer departments, etc. For that reason, they cannot benefit properly.

As a result, educating the students with the 21st century's requirements being technology literate is crucial. Considering Turkey's school -age population, it is seen that there is great potential, to make the best of that potential and using it to develop the society are some of the aims of 2023 Education Vision document. For this reason, school leaders are expected to lead the potential of the youth. According to the results of this study, it is expected from school administrators and teachers to be a good technology leader and being open for innovations is essential to achieve the goals of that document. Removing the obstacles which are on the way the goal would make it easier to achieve this project. The 2023 Vision Document emphasizes the importance of making teaching attractive for students of the current age, facilitating the role of the teacher, providing access to primary source information, increasing learning resources, creating learning environments that cater to students' needs and creating a national digital archive and digital content. This project is the realization of the expectation that "students and teachers living anywhere in Turkey should have equal access to teaching and learning opportunities in order to achieve and learning to can reach far beyond of the classroom walls". The longing to be in the top positions in international education rankings, which is emphasized in the 2023 Education Vision Document, can only be possible with the successful implementation of this project.

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## GENİŞ ÖZET

### Giriş

Günümüzde teknolojinin baş döndürücü bir hızla gelişimi, beraberinde örgüt yapılarının işleyişleri, değerleri, inançları ve sistemlerde önemli değişimlere yol açmaktadır. Bu gelişim ve değişimin etkileri sosyal, ekonomik ve kültürel alanlarda olduğu gibi, eğitimde de her geçen gün daha fazla hissedilmektedir. 21.yüzyıl gerekleri olan; temel okuryazarlık, yetkinlikler, karakter özellikleri becerilerini kazanmış öğrencileri yetiştirme çabasında olan eğitim sistemleri, bilgi okuryazarlığına odaklanarak teknolojiyi günlük yaşamın vazgeçilmezi olarak görmeye başlamışlardır. Vizyon 2023 hedeflerine göre, önümüzdeki sürece gerek içerik gerekse nitelik bağlamında bakıldığında öğrencilerin bilişim teknolojileri kullanımıyla "üretmeyi", "sorunlara çözümler geliştirmeyi" ve ""hayallerini gerçekleştirmeyi" başarabilecekleri varsayılmaktadır. İçinde bulunduğumuz çağda öğrencilerin öğrenmeyle olan ilişkisi sadece pasif dinleyicilik değildir. Çocuklar için öğrenme, kişisel olarak merak ettiklerini öğrenmeye çalışırken aynı zamanda katılımcı olmayı, deneyimlemeyi ve eleştirel düşünmeyi gerektiren bir süreçtir.

### Yöntem

Bu çalışma, 2023 Eğitim Vizyonu hedeflerinden olan, "öğrenme süreçlerinde dijital içerik ve beceri destekli dönüşüm hedefleri" hakkında okul yöneticileri ve öğretmenlerinin görüşlerini almak amacıyla yapılan bir nitel çalışmadır. Katılımcılar, İstanbul ili, ilköğretim, ortaöğretim ve lise düzeyinde bulunan okullardan gönüllülük esasına göre seçilmiş yedi okul yöneticisi, üç yönetici yardımcısı ve on sınıf öğretmenidir. Çalışmanın amacına ulaşmak üzere şu sorulara cevap aranmıştır: 1-Okul yöneticilerinin ve öğretmenlerinin öğrenme süreçlerinde dijital içerik ve beceri destekli dönüşüm hedefleri hakkındaki görüşü nedir? 2-Okul yöneticilerinin ve öğretmenlerinin kendilerinden beklenen dijital liderliğe hazır bulunuşlukları hakkındaki görüşü nedir? Çalışma sonucunda ortaya çıkan okul yöneticilerinin ve öğretmenlerinin dijital eğitim ve öğretim kültürü yaratma sürecindeki gözlemleri ve deneyimleri meslektaşlarına kişisel

gelişimlerini desteklemeye yönelik bir rehber, ayrıca bu hedeflere ulaşmaya yönelik özgün araştırma konularına bir kaynak olabilecektir.

## **Bulgular**

Birinci problem olarak okul yöneticilerine ve öğretmenlerine öğrenme süreçlerinde dijital içerik ve beceri destekli dönüşüm hedefleri hakkındaki görüşünüz nedir? sorusu sorulmuştur. Dijital içerik ve beceri destekli dönüşüm hedefleri projesinden öğretmenlerin ve yöneticilerin olumlu beklentilerinin olduğu görülmektedir. Çalışmanın sonuçlarına göre, "öğrenme sürecinde dijital içerik ve beceri destekli dönüşüm hedefleri projesi" nin öğretmenlere ve öğrencilere çok yararlı olabileceği, eğitime katkı sağlayabileceği, bilgiye kolay erişimle öğrenmeyi kolaylaştıracağı, ülkenin her köşesindeki öğretmen ve öğrenciye eşit öğrenme fırsatı yaratabileceği vurgulanmıştır. Ayrıca, zamandan ve malzemeden tasarruf sağlanabileceği ifade edilmiştir. Çalışmaya katılan tüm katılımcıların beklentileri öğrencilerin üreten, kendi materyallerini dijital yardımıyla yapabilen yenilikçi ve çağın gereksinimlerini karşılayabilecek öğrencilerin yetişmesini sağlamaktır. Dijital içerik kullanımıyla bireysel gelişimin, olumlu yönde ilerleme göstereceği katılımcıların ortak görüşü olmuştur. Öğrencilerin bilgi deposu dijital içeriklerden yararlanarak gereksinim duydukları bilgi ve beceriye kolayca erişebilecekleri ifade edilmiştir. İkinci problem olarak "okul yönetici ve öğretmenlerinin kendilerinden beklenen dijital liderliğe hazır bulunuşlukları hakkındaki görüşü nedir?" Sorusuna ilişkin olarak katılımcıların görüşleri, öğrenme süreçlerinde dijital içerik ve beceri destekli dönüşüm sürecinde teknoloji liderliğinin önemini ortaya çıkarmıştır. Okulda teknolojik altyapının sağlanmış olmasının tek başına yeterli olamayacağını, teknolojinin okulda etkin kullanımı için teknoloji liderliğinin daha da gerekli olduğunu vurgulayan katılımcılar ayrıca doğru bilgiye erişimin, kaynakların doğru kullanımı, zamanın tasarruflu kullanımı ve dijital içeriklerden nasıl yararlanılacağı teknik bilgiye gereksinim duyduklarını ifade etmişlerdir. Doğru bilgiye kolay erişimin, bilginin doğru kullanılmasının yanı sıra bilinçsiz kullanımlardan kaynaklanabilecek risklerden öğrencilerin kendilerini koruyabilmeleri, siber güvenliğin sağlanabilmesi oldukça dikkat edilmesi gereken bir husus olarak ortaya çıkmıştır. Bu yüzden teknoloji liderliği rolünü üstlenmeleri beklenen okul liderlerinin bu konuda yeterli kişisel donanımına sahip olmaları gerekmektedir. Öğrencileri mükemmel olarak yetiştirmek sorumluluğu öğretmenlerin 21.yy. becerilerine sahip öğrencileri yetiştirebilmek için bilgiyi elde etme, bilgiyi geliştirme, bilgiyi kullanma ve kontrol edebilme gibi becerilere sahip olmaları gerekmektedir. Bu çalışmada ulaştığımız sonuçta katılımcı öğretmenler bu yeterliliklere sahip olmaları gerekliliğini bildiklerini ancak henüz kendilerini yeterli görmediklerini ifade etmişlerdir. Bu nedenle kaliteli ve uzun süreli hizmet içi eğitimlere ihtiyaç duyduklarını belirtmişlerdir. Katılımcılar bu eğitimlerin ise kaliteli ve sistemli olması gerekliliği belirtmişlerdir. Snavely ve Cooper (1997) bilgi okuryazarlığının, web okuryazarlığı, bilgisayar ve teknoloji okuryazarlığı, çoklu-ortam okuryazarlığı, ağ okuryazarlığı, medya okuryazarlığı, sorgulayıcı okuryazarlık gibi becerileri kapsadığını ifade eder. Bu çalışmaya konu olan Millî Eğitim Bakanlığının 2023 Eğitim Vizyon Belgesi'nde öngördüğü, eğitimde teknolojiden maksimum düzeyde yararlanılarak öğrencilerin teknoloji okuryazarı olarak yetiştirilmesidir. Bu nedenle teknoloji liderliğinin yaygınlaştırılması ve öğretmenlerin dijital içerikler oluşturması



önem arz etmektedir. Çalışmada okul yöneticilerin öğretmenlere nazaran daha etkin olarak teknolojiden yararlandıkları saptanmıştır. Çalışma grubunda bulunan yöneticilerin branşları ve eğitim düzeyleri katılımcı öğretmenlere kıyasla yüksektir. Aynı şekilde yüksek lisans yapmış öğretmenlerin de teknoloji kullanımında yeterli oldukları ve dijital içeriklerden oldukça fazla yararlandıkları ifadelerinde görülmektedir. Bu durumun hem eğitim düzeyinden hem de okulun resmi işlemlerinin tamamen dijital kullanılarak yapılmasından kaynaklandığı belirtilmiştir. Bu bağlamda okul yöneticilerinden ve öğretmenlerinden kendilerini sürekli olarak geliştirerek, teknolojik gelişmelerini tamamlamaları ve öğrencilerine iyi rol model olmaları beklenmektedir. Çalışma görüşmelerinde, yedi tane öğretmenin yeniliklere ve teknolojiye yatkınlıklarının olmadığı ortaya çıkmıştır. İçinde bulunulan çağda, öğrencilerin dijital çağı çocukları oldukları, teknoloji kullanıcısı oldukları hatta teknolojiyi kullanmada öğretmenlerinden daha hızlı oldukları yöneticiler ve öğretmenler tarafından vurgulanarak, öğretmenlerin bu hızın gerisinde kalmamaları önemle belirtilmiştir.

Üçüncü problem olarak "okul yöneticilerinin ve öğretmenlerinin, okullarında bu hedeflerin uygulanabilirliğine ilişkin görüşü nedir?" Sorusuna cevap aranmıştır. Dijital içerik ve beceri destekli dönüşüm hedefleri sürecinde karşılaşılabilecek birtakım güçlükler olabileceği ortaya çıkmıştır. Çalışmada dijitalleşmenin içeriğinden yararlanabilmek için teknolojik alt yapıya sahip olmanın önemli olduğu saptanmıştır. Bazı okulların teknolojik altyapı eksikliği mevcuttur. Bazı öğretmenlerin ve yöneticilerin, okulun ihtiyaçlarını okul paydaşlarından temin edebildiği bazılarının ise bunları devletten bekledikleri ifade edilmiştir.

### **Sonuç**

Sonuç olarak, çağın öğrencilerini 21.yüzyıl becerileriyle yetiştirmek için teknoloji okuryazarı olmak oldukça önem taşımaktadır. Türkiye'nin okul çağı nüfusu dikkate alındığında büyük bir potansiyele sahip olduğu görülmektedir. Bu potansiyelin verimli kılınması ve toplumun gelişmesi adına kullanılması 2023 Eğitim Vizyonu Belgesi" nin hedeflerindedir. Bu yüzden okul liderlerinden bu potansiyele öncülük etmeleri beklenmektedir. Bu çalışmada ortaya çıkan bulgulara göre 2023 Eğitim Vizyon Belgesi'nde yer alan "öğrenme süreçlerinde dijital içerik ve beceri destekli dönüşüm hedefleri "nin amacına ulaşılması okul yöneticileri ve öğretmenleri ile gerçekleştirilebilecektir. Bunu gerçekleştirmek için okul liderlerinin kendilerini birer teknoloji lideri olarak geliştirmeleri, yenilikçi olmaları oldukça önem arz etmektedir. Hedeflere ulaşmanın önündeki zorlukların giderilmesi projenin hedeflerine ulaşmasını kolaylaştırabilecektir. 2023 vizyon belgesi, öğrenciler için öğretimi cazip hale getirmek, öğretmenin rolünü kolaylaştırmak, birincil kaynaktan bilgilere erişim sağlamak, öğrenme kaynaklarını artırmak, öğrencilerin ihtiyaçlarına uygun öğrenme ortamları oluşturmak ve ulusal bir dijital içerik oluşturmaya ve öğrenmenin sınıf duvarlarını aşmasına yöneliktir. Bu sağlandığı takdirde 2023 Eğitim Vizyon Belgesi'nde önemle vurgulanan uluslararası eğitim sıralamalarında, üst sıralarda yer alınması özlemi bu projenin başarıyla uygulanabilmesiyle gerçekleşebilecektir.