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Research Paper

Investigation of Private School Teachers' Perceptions on the Management of Educational Technologies Integration Processes[1]

Ahmet Ali Gündoğdu[a*], Kamil Arif Kırkıç[b]

[a](ORCID ID: 0000-0002-6598-9409), Istanbul Sabahattin Zaim University, Istanbul, Türkiye, ahmethocam@gmail.com
[b](ORCID ID: 0000-0002-8902-437X), Istanbul Sabahattin Zaim University, Faculty of Education, Department of Educational Sciences, Istanbul, Türkiye, kamil.kirkic@izu.edu.tr
[*]Corresponding author

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ABSTRACT

This study aims to determine the perceptions of teachers working in private schools regarding technology integration management. This study used a descriptive survey method and a quantitative research model. The study group consisted of 220 private schoolteachers working in Istanbul. Demographic information form and "Teachers' Perception Scale on Technology Integration Processes" were used to collect data. The frequency and percentage distributions of the demographic information obtained from the scale were determined. Because the distribution of bivariate groups was expected, a t-test was applied to these groups. One-way analysis of variance (One-way ANOVA) was applied to three or more variables, and the "Kruskal Wallis Test" was applied to the "Type of School" variable with fewer than 30 groups. According to the results of the research, it was determined that private school teachers' perceptions of technology integration management were at an "undecided" level. It was found that private school teachers' perceptions of technology integration management did not differ significantly according to gender. However, their perceptions of technology integration management differed significantly depending on their educational status, the type of school in which they worked, and the level of use of educational technologies. In addition, the research results showed no significant difference between private school teachers' age, professional seniority, and seniority in the institution regarding their perceptions of technology integration management.

INTRODUCTION

The rapid development of information and communication technologies in the 21st century has made it necessary to use them to improve learning and teaching methods in the education system (Couse & Chen, 2010, pp. 75-96). The purpose of technology integration in education is to ensure that technology becomes an integral tool in teaching basic subjects. It can support and improve students' learning abilities by diversifying their learning methods using computers and software (Joan et al., 2013). Richardson (2009, p.117-130) also argued that technology integration should be used effectively in teaching and learning.

Integrating technology into the educational system has necessitated the redefinition of roles for educational faculties, teachers, administrators, and related stakeholders. Educational institutions, including schools, private teaching entities, and training centers, are focused on creating environments enriched with technologies that enhance educational and training processes. These technologies are intended to be utilized by teachers and students within and beyond the classroom setting. These objectives must be achieved concurrently (Kaya & Yılayaz, 2013, pp. 57-83).

Most teachers agree that technology is suitable for subject learning and are convinced of the potential benefits of technology in education (Barri, 2013, p.9). The most important aspect of teachers' potential internal incentives to include technology in teaching is that technology improves students' learning processes (Barri, 2013). Technologies such as computers, tablets, smart TVs, and the Internet have become indispensable components of the school environment, as they benefit students in various aspects of learning. Students develop the skills of these components.

- Reading and writing skills (Ash, 2011, cited. Barri, 2013, p.2),
- Critical thinking associated with data analysis or problem-solving (Marri, 2005, pp. 395-409),
- Collaborative learning (Huang, 2006),
- Learning through simulation related to unique tasks (Means, 1993),
- Individualized learning for students (US Congress, 1995)

Technology also increases students' class participation and academic success (Barri, 2013; Hadley & Sheingold, 1993, pp. 261-315).

[1]This article is derived from the thesis prepared by the first author under the supervision of the second author.

There are five primary standards for these activities:

1. Higher-order thinking,
2. Depth of knowledge,
3. Connection to the world beyond the classroom
4. Meaningful speech,
5. Social support for student success

These activities are also described as “real-world tasks” that students may encounter in their future careers, at home, or in other social contexts (Perreault, 1999, pp. 35-41). Although computer technologies are intertwined with education, teachers do not prefer to prepare homework for students. Teachers are worried about not using these technologies well enough (Marri, 2005, pp. 395-409). Even though teachers can prepare digital homework, students who do not have a computer or Internet at home cannot do this homework. Technology integration in education also has adverse effects, such as barriers and low intrinsic motivation. Research has shown that technology positively impacts education, and teachers gain motivation by using technology in education. However, they encountered obstacles such as inadequate and weak in-service and pre-service training, many students, poor quality, old and inadequate technological tools, and a lack of teacher time (Barri, 2013).

Using information technologies in schools improves teaching and learning processes. Leaders must choose information technologies based on their desired learning outcomes. They should also consider instructional design issues, such as how they can add value to teaching, learning, and support assessment practices (Dexter, 2002, pp. 56-70). Any technology integrated into a school's learning and teaching activities must be carefully selected for its suitability to the cognitive activity and subject matter demanded by the learning outcome to improve access, processing, and communication of data, information, and knowledge by performing these processes. They should also be more actionable, interactive, or collaborative. Technology can also help assess learning outcomes by making students think and allowing teachers to notice different versions of their work (Dexter, 2008, pp. 543-553).

There are certain conditions under which a school can use technology to support student learning. The first is to provide teachers with professional development opportunities and support professional development. Research has shown that providing these learning opportunities is a significant challenge for most schools. In a US study, less than 15% of the country's K-12 schools provided high-quality technology support contexts that offered one-on-one support, facilitated teacher discussions, and focused on integration issues (Ronnkvist et al., 2000). However, this type of high-quality support has been shown to support teachers' collaborative learning regarding the instructional use of technology (Dexter et al., 2003). Therefore, core leadership functions such as setting direction, developing people, and making the organization work can be reconceptualized as participating in the purpose of technology, teacher development, professional community building, and access to technology and support for it (Dexter, 2008).

The literature on learning organizations suggests that when technology leaders expect instructional innovation and flexibility among school staff, they should instill team learning, create a shared vision, and use systems thinking. School contexts that support this type of collective learning among staff members increase the likelihood that all the learning needs of all staff members will be met (Marks & Louis, 1997, 1999). Achieving this complex goal requires a team of individuals working together to focus on using technology to support student learning and create supportive contexts for teachers (Dexter, 2008, pp. 543-553).

Effective use of computers can significantly improve students' educational experiences in many ways. Studies have found that college students who use computer-assisted communication programs interact with their language more frequently and are likelier to use longer and more complex expressions. (Kern, 1995, p.57-76). Liu and Reed (1995) found that software that combines audio, video, images, and other explanations is effective in helping college students learn English vocabulary as a second language. Little-Reynolds and Takacs (1998) found that it has been observed that computer-assisted instruction increases the performance of students who are studying in the field of mathematics and who are progressing at a low level in this field. In an overview of educational studies in hypermedia and content areas, Burton, Moore, and Holmes (1995) have concluded that hypermedia is at least as effective as, and sometimes more effective than, traditional teaching methods. Hypermedia is more time-efficient than traditional methods (Little-Reynolds & Takacs, 1998).

Technology Integration and School Management

Integrating educational technologies that support student-centered education and facilitate self-learning and social learning has radically changed the education system (Fu, 2013, p.112). Technological integration has provided easy access to educational resources, learning and teaching tools, and information sought by teachers. Therefore, teachers may be more active in classrooms. In addition, technological integration helps teachers teach relevant subjects to students more effectively (Tansu & İşcioğlu, 2014).

Two primary methodologies have been employed in the Management of technology integration within educational contexts: the philosophical and cultural approaches. The philosophical approach facilitates the formulation of effective plans by scrutinizing the intrinsic nature of the technology and investigating its potential social impacts. Concurrently, the cultural approach

incorporates the most suitable and efficient technology into the educational system by analyzing the societal context, including the prevailing climate, cultural heritage, and available economic resources (Ural, 2015).

It is essential to plan technology management using both approaches correctly. Although technology is widely used in education, uncertain results have been obtained regarding its impact on student success. In other words, technology-supported education can be positive or negative for student success individually and varies from student to student (Bulman & Fairlie, 2016, cited in Dönmez, 2023, p.38). Therefore, these factors should be considered when planning technology integration into education.

The decision-making processes of education administrators regarding technology integration are important in maximizing student success. The more effective, efficient, fast, and accurate it is, the greater the chance of achieving targeted success (Kaya, 1993). Successful results were seen in the output of technological tools and methods integrated into education. However, they were insufficient, and some standards were determined to improve them. These standards also include the knowledge and skills teachers should acquire (Ertmer et al., 2012, cited in. Barri, 2013).

Technology Integration Studies in Education in Türkiye

In Turkey, projects are underway to use new technologies in education. The establishment of computer laboratories in schools, in-service training for teachers, and inclusion of Information Technologies (IT) courses among compulsory courses in some classes are among the studies carried out within the scope of technology integration (Banoğlu et al., 2014). The Movement to Increase Opportunities and Improve Technology (FATIH) is the most prominent technology integration project in Türkiye. With this project, Internet connections, tablet computers, and interactive whiteboards (Smart TV) were installed in public schools; teachers were given in-service training, and efforts were made to harmonize the curriculum with technology-supported teaching. The FATİH project, initiated by the Ministry of National Education, aims to support student learning with the support of teachers and ensure technology integration by ensuring the effective use of the provided hardware and software (Banoğlu et al., 2014, pp. 34-58). Akıncı, Kurtoğlu, and Seferoğlu (2012) also stated that the most extensive support of teachers contributes to the preparation of educational e-content. The Ministry of National Education needs to support teachers in this regard, and teachers should undertake the preparation of e-content. To achieve this, teachers must receive in-service training to prepare e-content.

Technology Integration in Private Schools

Although the education sector is not a profit-oriented service, it is gradually becoming a commercial sector (Şişman, 2012). Private schools generally provide educational services at fees. Since private schools are for-profit, to maximize their profits, they must supply a higher quality service to students and their parents than public schools (Chubb & Moe, 1988). For the educational services of private schools to be of higher quality than those of public schools, they must be very successful in integrating technology and implementing different strategies (Erdoğan, 2005, cited in İlgar, 2014, p.262).

When private and public schoolteachers were examined in terms of their participation in courses and seminars to ensure their professional development, it was noticed that private schoolteachers were more likely to participate in in-service training. Additionally, a study revealed that private schoolteachers read more books to ensure their professional development (Özgan et al., 2011). Although it is advantageous for private school teachers to teach fewer students, they have more problems with participation in lectures and discipline than public schools. While the effectiveness of teachers in classroom management is more significant in public schools, the disciplinary behavior of private school teachers is more limited. Therefore, they seem more difficult to manage in the classroom (İlgar, 2014).

Whether a public school teacher or a private school teacher, their skills in using this technology must be at a reasonable level to transfer the developments in technology in the field of education (Reiner, 2009). Due to financial difficulties in public schools, teachers cannot use educational technologies adequately (Usluel et al., 2007). On the other hand, private school teachers may view educational technologies more positively and incorporate them into their education, as the facilities of private schools are more comprehensive than public schools (Demirci et al., 2007).

Based on the results of this research, the perception level of teachers working in private schools regarding technology integration management was assessed. According to the results of this research, the perception of this integration process was determined from the perspective of the person who will use this educational technology firsthand, and findings that can provide support to school administrations were obtained.

Research on this subject has been previously conducted for public schools, but no research has been conducted on private schools. Most existing studies are branch-based studies that do not specify school type. This research is vital for filling this gap. It is expected that the planning and implementation of technology integration in private schools will be more successful and accessible than in public schools because of the smaller number of students in the classroom, teachers' working conditions, motivation sources, in-service training opportunities, and fewer bureaucratic procedures. This research aims to determine how successful this expectation is or what problems private school teachers have experienced. With this study, the researchers hope to contribute to the solutions by revealing the teachers' perceptions about the Management of technology integration in private schools.

Problem Status

Globalization and technology are the two factors that have been felt most recently. Digital technologies offer a vision of what current and future life will be like (Şahin, 2003). With the development of technology, changes in the world have been reflected in the education system. Analyzing the changes and developments in technology will bring about the social structure and reorganize the education system accordingly so that the country's children are ready for the expectations of future technology, which will make Türkiye advantageous compared to other countries (Şahin, 2003). These regulations: There may be changes, such as making new decisions to eliminate the deficiencies of the education system or making innovations by education administrators, meeting the new demands and needs of school stakeholders, and integrating new technological products and technological applications into the education system. Investments made in educational technologies have expectations, such as increasing students' interest in lessons, decreasing absenteeism, successful teamwork among students, increasing cooperation, turning to student-centered education, reducing costs, increasing the use of digital education resources, and using digital tools that enable student success to be monitored, analyzed, and shared with relevant people. (Education Reform Initiative [ERG], 2013).

It will be easier to achieve the desired results when managers and administrators who are decision-makers in the education system in Türkiye work in cooperation with teachers who are practitioners. For this reason, when integrating technology into education, decision-makers and practitioners must discuss the decisions taken, the integration process, the positive and negative events experienced in this process, and the outcomes resulting from integration (Dönmez, 2023). Integrating technology into classrooms is critical (Mishra & Koehler, 2006). Technology is essential in teaching and improving students' learning (National Council of Teachers of Mathematics [NCTM], 2000). Teachers also play a fundamental and critical role in integrating technology into the classroom (Chen et al., 2009). Some teachers use technology because it is easily accessible in schools. It is necessary to understand better what kind of experience these teachers have. Although there are studies on this subject in different countries, the situation in Türkiye needs to be examined regarding teachers' experiences. The phenomenon discussed in this study is based on teachers' experience using technology in their classrooms. Understanding these experiences is essential to helping other teachers identify their needs.

Research on this subject has previously been conducted for public schools (A'mar & Eleyan, 2022; Dönmez, 2023), but no research has been found for private schools. Most existing studies are branch-based studies that do not specify school type. In future studies, it is recommended to conduct various studies on the use and integration of digital resources for education (Xie et al., 2023, p.301). This study aims to determine private school teachers' perceptions of the methods and processes of planning the integration of new educational technology into their education systems to determine the benefits of this technology in education.

In this regard, the main problem of the research is "What are the perceptions of private schoolteachers regarding technology integration management?".

Aim

This study determined teachers' perceptions of technology integration management in private schools. For this purpose, the problems for which answers are sought are expressed as follows:

1. What are the perceptions of private schoolteachers regarding technology integration management?
2. Is there a significant difference in private schoolteachers' perceptions of technology integration management according to their age, gender, type of school, educational status, professional seniority, seniority in the institution, and level of use of educational technologies?

RESEARCH METHOD

Research Model

This study, which was conducted to determine the perceptions of teachers working in private schools regarding technology integration management, was used " as a Quantitative Research method. A Quantitative Research" method was used to answer the research questions. It is the degree of explainability of independent variables according to the changes in dependent variables and the degree of generalizability (Metin, 2014). The descriptive survey" method is research conducted on large groups and attempts to describe the thoughts and attitudes of individuals within this group regarding a situation or event (Metin, 2014).

Study Group

By performing universe sample calculations, 179.895 people in Istanbul were identified (Ministry of National Education-MoNE, 2023). Two hundred twenty schoolteachers were obtained by simple random sampling by sending an online form. The Demographic information of the study participants is presented in Table 1.

Table 1. Demographic information of the study participants

Demographic Information		Frequency	Percentage (%)
Gender	Female	145	65.9
	Male	75	34.1
Age	21-30 years old	31	14.09
	31-35 years old	44	20.00
	36-40 years old	41	18.64
	41 years and above	104	47.27
Type of School Worked	Kindergarten	20	9.1
	Primary school	68	30.9
	Secondary school	80	36.4
	High school	52	23.6
Educational Status	BA	138	62.7
	MA	82	37.3
Perceived Educational Technologies Usage Level	Fair	37	16.8
	Good	134	60.9
	Very good	49	22.3
Professional Seniority	1-10 years	58	26.36
	11-15 years	51	23.18
	16-20 years	49	22.27
	21 years and above	62	28.18
Seniority in the Institution	1-5 years	133	60.73
	6-10 years	38	17.35
	11 and above	48	22.02

Table 1 shows that among the private school teachers included in the study,
145 (65.9%) are female, 75 (34.1%) are male; 31 (14.09%) are 21-30 years old, 44 (20.00%) are 31-35 years old, 41 (18.64%) are 36-40 years old, 104 (47.27%) are 41 years old and above; 20 (9.1%) work in kindergarten, 68 (30.9%) in primary school, 80 (36.4%) in secondary school, and 52 (23.6%) in high school; according to their educational background, 238 (62.7) have a bachelor's degree and 82 (37.3%) have a master's degree; 37 (%16.8) stated that they use educational technologies at a moderate level, 134 (%60.9) at a reasonable level, and 49 (%22.3) at an excellent level; their professional experience is 58 (%26.36) 1-10 years, 51 (%10.00) 11-16 years, 49 (%22.27) 16-20 years, and 62 (%28.18) 21 years and above; their experience in the institution is 133 (%60.73) 1-5 years, 38 (%17.35) 6-10 years, and 48 (%22.02) 11 years and above.

Data Collection Tools

With his permission, the data were collected using the "Teachers' Perception Scale on Technology Integration Processes" developed by Dönmez (2023). As a result of this scale's analysis, the Cronbach Alpha internal consistency coefficient of ETES was found to be .84 for the first factor, .83 for the second factor, and .82 for the third factor. The Cronbach Alpha internal consistency coefficient of the entire scale was found to be .93.

In this study, cronbach's alpha internal consistency coefficient of the scale was .819 for the Analysis/Strategy sub-dimension, .850 for the Management/Organization sub-dimension, and .868 for the Evaluation sub-dimension. It was .920 for the entire scale. In the first part of this scale to be applied to private school teachers, questions were asked to determine the demographic information of private school teachers, and in the second part, questions were asked to determine the perceptions of private school teachers regarding technological integration management.

Data Collection

While collecting the research data, an online tool was used during the first semester of the 2023-2024 academic year. After receiving approval from the ethics committee dated 22.12.2023 and numbered 2023/08, the purpose of the research and the scale were sent to the participants online, and they were asked to fill them in at their own free will. It was assumed that teachers filled out the "Scale of Teachers' Perception of Technology Integration Processes" realistically and sincerely.

Analysis of Data

To check whether the data are distributed normally or not, the skewness and kurtosis values calculated for the "Teachers' Perception Scale on Technology Integration Processes" are given in Table 2.

Table 2. "Teachers' Perception Scale on Technology Integration Processes" Skewness and Kurtosis Values

Sub-Dimensions	*N*	$\overline{X}$	*ss*	Skewness		Kurtosis	
				Value	$Sh_{\bar{x}}$	Value	$Sh_{\bar{x}}$
Analysis / Strategy	220	3.01	.310	-.014	.164	.047	.327
Management / Organization	220	3.46	.259	-.661	.164	.388	.327
Evaluation	220	3.41	.284	-.580	.164	-.050	.327
Total Scale	220	3.26	.747	-.442	.164	.267	.327

Table 2 shows the kurtosis and skewness of the "Teachers' Perception Scale on Technology Integration Processes" is between +1.5 and - 1.5. This result shows a normal distribution (Tabachnick & Fidell, 2013). Information regarding the data analysis using SPSS is provided below.

1. Descriptive analysis was conducted for the “Teachers' Perception Scale on Technology Integration Processes and Sub-dimensions.
2. "Independent Samples t-test" was applied to determine a significant difference in the results obtained from the “Teachers' perception scale on technology integration processes” and sub-dimensions according to gender and educational status.
3. The “Kruskal Wallis Test" was used to determine the existence of a significant difference between the “Teachers' perception scale on technology integration processes” and sub-dimensions, the level of use of educational technologies, and the type of school they work in. If there was a significant difference, the "Mann-Whitney U Test" was used to understand which groups had a difference.

RESEARCH FINDINGS

Findings of the first problem

According to the data obtained, the answer to the question "What is the perception of private school teachers regarding technology integration management?" is given in Table 3.

Table 3. Descriptive Analysis Results for "Private School Teachers' Perception Scale on Technology Integration Processes" and its Sub-Dimensions

Dimensions	*N*	M	*SD*	SEM
Analysis / Strategy	220	3.01	4.599	.310
Management / Organization	220	3.46	3.838	.259
Evaluation	220	3.41	4.218	.284
Total Scale	220	3.26	11,081	.747

As seen in Table 3, when the analysis results of teachers' perceptions of technology integration processes are examined, the average of the Analysis and Strategy sub-dimension was 3.01, the average of the Management and Organization sub-dimension was 3.46, and the average of the evaluation sub-dimension was 3.41. According to these results, teachers working in private schools are undecided about the analysis/strategy and evaluation sub-dimensions of their institutions' technology integration management perceptions. They are at the "agree" level in the management/organization sub-dimension.

Findings of the second problem

"Do private school teachers' perceptions of technology integration management differ significantly according to their gender, their level of use of educational technologies, the type of school they work in, their educational status, their age, their seniority in the profession, and their seniority in the institution?” The data obtained based on the answers to the question are presented below.

Gender

The results of the Independent Samples t-test applied regarding the existence of a significant difference between the private school teachers' perceptions of technology integration management and the gender variable are given in Table 4.

Table 4. t-Test Results of "Private School Teachers' Perception Scale on Technology Integration Processes" and its Sub-Dimensions According to Gender Variable Groups

Dimensions	**Gender**	*N*	M	SD	**SEM**	***t* test *t***	**df**	*p*
Analysis / Strategy	Male	75	2.96	4.55	.526	-0.081	218	.420
	Female	145	3.04	4.63	.384			
Management / Organization	Male	75	3.38	4.04	.467	-1.156	218	.249
	Female	145	3.50	3.73	.309			
Evaluation	Male	75	3.27	4.25	.491	-1.787	218	.075
	Female	145	3.48	4.17	.346			
Total Scale	Male	75	3.17	11.55	1.334	-1.415	218	.158
	Female	145	3.30	10.79	.896			

As seen in Table 4, according to the results of the Independent Samples t-test applied regarding the existence of a significant difference between the averages of the "Private School Teachers' Perception Scale on Technology Integration Processes" and their genders, Analysis / Strategy dimension. [$t_{(218)} = -0.081$; $p>.05$], Management / Organization dimension [$t_{(218)}= -1.156$; $p>.05$] Evaluation dimension [$t_{(218)}= -1.787$; $p>.05$], There is no significant difference between male and female groups.

Educational Status

The results of the Independent Sample t-test applied regarding the existence of a significant difference between the perceptions of private school teachers on technology integration management and the educational status variable is given in Table 5.

Table 5. t-Test Results of "Private School Teachers' Perception Scale on Technology Integration Processes" and its Sub-Dimensions According to Educational Status Variable Groups

Dimensions	**Educational Status**	*N*	M	**SD**	**SEM**	***t* test *t***	**df**	*p*
Analysis / Strategy	License	138	3.06	4.684	.399	1.419	218	.157
	Master's Degree	82	2.93	4.423	.488			
Management / Organization	License	138	3.51	3.823	.325	1.208	218	.228
	Master's Degree	82	3.38	3.852	.425			
Evaluation	License	138	3.46	4.177	.356	1.124	218	.262
	Master's Degree	82	3.32	4.279	.473			
Total Scale	License	138	3.31	11,154	.949	1.437	218	.154
	Master's Degree	82	3.18	10,883	1.202			

As seen in Table 5, according to the results of the t-test applied regarding the existence of a significant difference between the averages of the "Private School Teachers' Perception Scale on Technology Integration Processes" and their educational status, Analysis / Strategy dimension [$t_{(218)} = 1.419$; $p>.05$], Management / Organization dimension [$t_{(218)}= 1.208$; $p>.05$] Evaluation dimension [$t_{(218)}= 1.124$; $p>.05$], there is no significant difference between the groups.

Level of Use of Educational Technologies

Information regarding the results of the One-Way ANOVA applied regarding a significant difference between the perceptions of private school teachers on technology integration management and the variable of their level of use of educational technologies is presented in Table 6.

Table 6: "Private School Teachers' Perception Scale on Technology Integration Processes" and its Sub-Dimensions and One-Way ANOVA Results According to the Variable of Level of Use of Educational Technologies

	N,M and SD Values				**"ANOVA" Results**					
Dimension	Level of Use of Educational Technologies	**N**	M	**SD**	**Source of Variation**	**Sum of Squares**	**df**	**Mean Square**	*F*	*p*
Analysis / Strategy	Fair	37	2.78	4.53	**Between Groups**	186.16	2	93.081	4.543	.012
	Good	134	3.11	4.60	**Within Groups**	4446.37	217	20.490		
	Very good	49	2.92	4.31	**Total**	4632.53	219			
	Total	220	3.01	4.60						

Management/ organization	Fair	37	3.21	3.94	**Between Groups**	70.43	2	35.217	2.422	.091
	Good	134	3.50	3.77	**Within Groups**	3155.36	217	14.541		
	Very good	49	3.54	3.84	**Total**	3225.80	219			
	Total	220	3.46	3.84						
Evaluation	Fair	37	3.17	4.46	**Between Groups**	63.90	2	31.949	1.809	.166
	Good	134	3.46	4.05	**Within Groups**	3831.81	217	17.658		
	Very good	49	3.46	4.41	**Total**	3895.71	219			
	Total	220	3.41	4.22						
Total Scale	Fair	37	3.02	12.00	**Between Groups**	787.94	2	393.97	3.275	.040
	Good	134	3.33	10.91	**Within Groups**	26101.42	217	120.28		
	Very good	49	3.26	10.28	**Total**	26889.36	219			
	Total	220	3.26	11.08						

As seen in Table 6, according to the results of the One Way ANOVA applied regarding the existence of a significant difference between the perceptions of private school teachers on technology integration management and the variable of their level of use of educational technologies, Management/Organization [$F_{(2-217)} = 2.422$; $p>.05$]; and in the Evaluation subscale [$F_{(2-217)} = 1.809$; $p>.05$] there is no significant difference between groups. In the Analysis/Strategy subscale [$F_{(2-217)} = 4.4543$; $p<.05$], a total scale [$F_{(2217)} = 3.275$; $p<.05$], a significant difference was found between the groups.

The results of the LSD test applied to understand which components of the group the significant difference occurred in are given in Table 7.

Table 7. LSD Test Results of Private School Teachers' Perception Scale on Technology Integration Processes and its Sub-Dimensions According to the Variable of Level of Use of Educational Technologies

Dimension	**(I) Level of Use of Educational Technologies**	**(J) Level of Use of Educational Technologies**	$\bar{x}_i - \bar{x}_j$	**SEM**	p
Analysis/ Strategy	Good	Fair	2.344*	.841	.006
		Very good	1.348	.0841	.076
Total Scale	Good	Fair	5.213*	2.037	.011
		Very good	1.109	1.831	.545

As seen in Table 7, according to the results of the LSD test applied to see which components of the group have a significant difference between private school teachers' perceptions of technology integration management and the variable of their level of use of educational technologies, the difference is between the "GOOD" group and the "FAIR" and "VERY GOOD" groups. It is seen that among the group, it is in favor of the "GOOD" group ($p <.05$). Their perceptions of technology integration management are higher in the Analysis / Strategy sub-dimension and in the general scale compared to teachers whose level of use of educational technologies is "GOOD" and private school teachers who are between the "FAIR" and "VERY GOOD" groups.

Type of School Worked

The results of the Kruskal Wallis H Test applied regarding the existence of a significant difference between the perceptions of private school teachers on technology integration management and the variable of the type of school they work in is presented in Table 8.

Table 8. Kruskal Wallis H Test Results of "Private School Teachers' Perception Scale on Technology Integration Processes" and its Sub-Dimensions According to the Variable of School Type Where They Work

Sub-Dimensions	Type of School Attended	n	M	SD	Rank Average	Kruskal Wallis H	
						x^2	p
Analysis / Strategy	Kindergarten	20	3.27	.973	135.35	5.644	.130
	Primary school	68	3.09	.570	117.41		
	Secondary school	80	2.94	.513	103.78		
	High school	52	2.92	.615	102.25		
	Total	220	3.01	.310			
Management organization	Kindergarten	20	3.63	.670	126.35	2.740	.433
	Primary school	68	3.55	.443	116.16		
	Secondary school	80	3.39	.453	104.86		
	High school	52	3.38	.555	105.67		
	Total	220	3.46	.259			
Evaluation	Kindergarten	20	3.84	.790	147.18	9.826	.020
	Primary school	68	3.49	.496	115.89		
	Secondary school	80	3.33	.506	104.71		
	High school	52	3.26	.541	98.25		
	Total	220	3.41	.284			
Total Scale	Kindergarten	20	3.54	2.140	142.20	7.902	.048
	Primary school	68	3.34	1.302	117.12		
	Secondary school	80	3.19	1.298	102.27		
	High school	52	3.15	1.491	102.32		
	Total	220	3.26	.747	135.35		

As seen in Table 8, according to the results of the Kruskal Wallis H Test applied regarding the existence of a significant difference between perceptions of private school teachers on technology integration management and the variable of the type of school they work in; Analysis/Strategy dimension [H =5,644; p>.05]; Management/Organization dimension [H = 2.40; p>.05] there is no significant difference between groups. In the evaluation dimension [H = 9.826; p<.05] and the total scale [H=7.902; p<0.05], there is a significant difference between groups.

The Mann-Whitney U Test results are given in Table 9 to find the significant difference between groups.

Table 9. Mann-Whitney U Results of Private School Teachers' Perception Scale on Technology Integration Processes and Its Sub-Dimensions According to the Variable of School Type

Dimension	Groups	N	Rank Avg	Rank Total	U	p
Evaluation	Kindergarten	20	54.45	1089.00	481.00	.045
	Primary school	68	41.57	2827.00		
Total Scale	Kindergarten	20	51.90	1038.00	532.00	.140
	Primary school	68	42.32	2878.00		
Evaluation	Kindergarten	20	65.03	1300.50	509.50	.012
	Middle school	80	46.87	3749.50		
Total Scale	Kindergarten	20	64.93	1298.50	511.50	.013
	Middle school	80	46.89	3751.50		
Evaluation	Kindergarten	20	48.70	974.00	276.00	.002*
	High school	52	31.81	1654.00		
Total Scale	Kindergarten	20	46.38	927.50	322.50	.013
	High school	52	32.70	1700.50		
Evaluation	Primary school	68	78.54	5340.50	2445.50	.289
	Secondary school	80	71.07	5685.50		

Total Scale	Primary school	68	79.82	5428.00		
	Secondary school	80	69.97	5598.00	2358.00	.163
Evaluation	Primary school	68	64.78	4405.00		
	High school	52	54.90	2855.00	1447.00	.121
Total Scale	Primary school	68	63.97	4350.00		
	High school	52	55.96	2910.00	1532.00	.211
Evaluation	Secondary school	80	67.78	5422.00		
	High school	52	64.54	3356.00	1978.00	.633
Total Scale	Secondary school	80	66.40	5312.00		
	High school	52	66.65	3466.00	2072.00	.970

When the new p-value was recalculated, it was found to be 0.008.
(0.05 / number of comparisons => 0.05 / 6 = 0.008)

As seen in Table 9, according to the results of the Mann-Whitney U Test applied to understand in which components of the group there is a significant difference between perceptions of private school teachers on technology integration management and the variable of the school type they work in, the "Kindergarten" group in the evaluation sub-dimension (Mdn = 20) and the "High School" group (Mdn = 18) in favor of the "Kindergarten" group (p< 0.008, U = 276.00, P = 0.002, z = -3.096, r = -0.36).

Age

The results of the One-Way ANOVA applied regarding the existence of a significant difference between the perceptions of private school teachers on technology integration management and the age variable is given in Table 10.

Table 10. One-Way ANOVA Results of "Private School Teachers' Perception Scale on Technology Integration Processes" and its Sub-Dimensions According to Age Variable

Dimension	f **, and** ss **Values**				**"ANOVA" Results**					
	Professional Seniority	N	$\bar{X}$	ss	**Var. K.**	KT	Sd	KO	F	p
Analysis / Strategy	1-10 years	58	3.17	5,057	**Btw. Gr.**	112.66	3	37.55		
	11-15 years	51	2.90	4,609	**In group**	4519.87	216	20.93		
	16-20 years	49	2.99	4,082	**Total**	4632.53	219		1.80	.15
	20 years and above	62	2.97	4,436						
	Total	220	3.01	4,599						
Management organization	1-10 years	58	3.53	4,258	**Btw. Gr.**	18.78	3	6.26		
	11-15 years	51	3.38	3,748	**In group**	3207.02	216	14.85		
	16-20 years	49	3.42	3,730	**Total**	3225.78	219		.42	.74
	20 years and above	62	3.49	3,629						
	Total	220	3.46	3,838						
Evaluation	1-10 years	58	3.40	4,290	**Btw. Gr.**	23.65	3	7.88		
	11-15 years	51	3.33	4,171	**In group**	3872.06	216	17.93		
	16-20 years	49	3.38	4,499	**Total**	3895.71	219		.44	.73
	20 years and above	62	3.50	4,011						
	Total	220	3.41	4,218						
Total Scale	1-10 years	58	3.34	12,10	**Btw. Gr.**	266.29	3	88.76		
	11-15 years	51	3.16	11.05	**In group**	26623.07	216	123.25		
	16-20 years	49	3.23	10.90	**Total**	26889.36	219		.72	.54
	20 years and above	62	3.28	10.31						
	Total	220	3.26	11.08						

As seen in Table 10, according to the results of the One-Way ANOVA applied regarding the existence of a significant difference between perceptions of private school teachers on technology integration management and the age variable; Analysis/Strategy subscale [$F_{(4-215)} = 1.84$; $p>.05$]; Management/Organization [$F_{(4-215)} = 0.66$; $p>.05$]; Evaluation subscale [$F_{(4-215)} = 0.34$; $p>.05$]; overall scale [$F_{(4-215)} = 0.72$; $p>.05$] there is no significant difference between the groups.

Professional Seniority

The results of the One-Way ANOVA applied regarding the existence of a significant difference between the perceptions of private school teachers on technology integration management and the variable of Professional Seniority are given in Table 11.

Table 11. One-Way ANOVA Results of "Private School Teachers' Perception Scale on Technology Integration Processes" and its Sub-Dimensions Scores According to the Variable of Professional Seniority

Dimension	f, $\bar{x}$ **and** ss **Values**				**"ANOVA" Results**					
	Professional Seniority	N	$\bar{x}$	ss	**Var. K.**	KT	Sd	KO	F	p
Analysis / Strategy	1-10 years	58	3.17	5.057	**Btw. Gr.**	112.66	3	37.55		
	11-15 years	51	2.90	4.609	**In group**	4519.87	216	20.93		
	16-20 years	49	2.99	4.082	**Total**	4632.53	219		1.80	.15
	20 years and above	62	2.97	4.436						
	Total	220	3.01	4.599						
Management organization	1-10 years	58	3.53	4.258	**Btw. Gr.**	18.78	3	6.26		
	11-15 years	51	3.38	3.748	**In group**	3207.02	216	14.85		
	16-20 years	49	3.42	3.730	**Total**	3225.78	219		.42	.74
	20 years and above	62	3.49	3.629						
	Total	220	3.46	3.838						
Evaluation	1-10 years	58	3.40	4.290	**Btw. Gr.**	23.65	3	7.88		
	11-15 years	51	3.33	4.171	**In group**	3872.06	216	17.93		
	16-20 years	49	3.38	4.499	**Total**	3895.71	219		.44	.73
	20 years and above	62	3.50	4.011						
	Total	220	3.41	4.218						
Total Scale	1-10 years	58	3.34	12.10	**Btw. Gr.**	266.29	3	88.76		
	11-15 years	51	3.16	11.05	**In group**	26623.07	216	123.25		
	16-20 years	49	3.23	10.90	**Total**	26889.36	219		.72	.54
	20 years and above	62	3.28	10.31						
	Total	220	3.26	11.08						

As seen in Table 11, according to the results of the One-Way ANOVA applied regarding the existence of a significant difference between perceptions of private school teachers on technology integration management and the variable of Professional Seniority; Analysis/Strategy sub-dimension [$F_{(4-215)} = 1.80$; $p>.05$]; Management/Organization [$F_{(4-215)} = 0.42$; $p>.05$]; In the evaluation subdimension [$F_{(4-215)} = 0.44$; $p>.05$]; overall scale [$F_{(4-215)} = 0.72$; $p>.05$], there is no significant difference between groups.

Seniority in the Institution

The results of the One-Way ANOVA applied regarding the existence of a significant difference between the perceptions of private school teachers on technology integration management and the variable of seniority in the institution.

Table 12. One-Way ANOVA Results of "Private School Teachers' Perception Scale on Technology Integration Processes" and its Sub-Dimensions Scores According to the Variable of Seniority in the Institution

Dimension	f, $\overline{X}$ and ss Values				"ANOVA" Results					
	Seniority in the profession	N	$\overline{X}$	ss	Var. K.	KT	Sd	KO	F	p
Analysis / Strategy	1-5 years	58	0.48	1.04	**Btw. Gr.**	1.22	2	.61	.62	.54
	6-10 years	51	0.46	0.98	**In group**	212.71	217	.98		
	11 years and above	111	0.49	0.97	**Total**	213.93	219			
	Total	220	0.48	0.99						
Management organization	1-5 years	58	4.44	5.06	**Btw. Gr.**	111.88	2	55.94	2.69	.07
	6-10 years	51	4.05	4.61	**In group**	4520.65	217	20.83		
	11 years and above	111	4.17	4.27	**Total**	4632.53	219			
	Total	220	4.22	4.60						
Evaluation	1-5 years	58	3.53	4.26	**Btw. Gr.**	14.70	2	7.35	.50	.61
	6-10 years	51	3.38	3.75	**In group**	3211.10	217	14.80		
	11 years and above	111	3.46	3.66	**Total**	3225.80	219			
	Total	220	3.46	3.84						
Total Scale	1-5 years	58	1.00	4.29	**Btw. Gr.**	13.87	2	6.93	.39	.68
	6-10 years	51	0.98	4.17	**In group**	3881.84	217	17.89		
	11 years and above	111	1.01	4.22	**Total**	3895.71	219			
	Total	220	1.00	4.22						

As seen in Table 12, according to the results of the One-Way ANOVA applied regarding the existence of a significant difference between perceptions of private school teachers on technology integration management and the variable of their seniority in the institution; Analysis/Strategy dimension [$F_{(4-214)} = 0.62$; $p>.05$]; In the Management/Organization dimension [$F_{(4-214)} = 2.69$; $p>.05$]; On the evaluation dimension [$F_{(4-214)} = 0.50$; $p>.05$]; overall scale [$F_{(4-214)} = 0.39$; $p>.05$] there is no significant difference between groups.

DISCUSSION AND CONCLUSION

Findings regarding the problem of "What is the level of perception of private school teachers regarding technology integration management?" and the average of the total scale scores of perceptions on technology integration management were found to be at a medium level. When compared to the results obtained by Dönmez (2013) with the same scale applied to public school teachers, it is seen that public school teachers have higher perceptions of technology integration management than private school teachers.

According to these results, while the perception of private school teachers in the Analysis / Strategy sub-dimension is 3.01, the perception of public school teachers is 3.22; While the perception of private school teachers in the Management/Organization sub-dimension is 3.46, the perception of public school teachers is 3.53; While the perception of private school teachers was 3.41 in the evaluation sub-dimension, the perception of public school teachers was 3.56, and in the total scale, while the perception of private school teachers was 3.29, the perception of public school teachers was 3.41.
As can be seen, public school teachers' perceptions of technology integration management are higher in the averages of all dimensions and the total scale averages of the Teachers' Perception Scale on Technology Integration Processes. According to their systematic review, it has been possible to implement more effective educational activities with Technology Integration to adapt to the changes that emerged in the COVID-19 pandemic. The high perception of Technology Integration in this study also shows that the positive effects of the COVID-19 process continue (Akram et al., 2022, p. 8). Factors that may cause a lower perception of technology integration management in private schools are listed below.

- Although the institutions where private school teachers work are financially better than public schools, the teachers' expectations about technology integration are high, and the institution cannot adequately meet these expectations. The public school teachers' expectations are low in this regard, and the state can quickly meet these expectations. For this reason, their averages may be lower than the averages of public schools.

- The reason for considerable differences in perceptions of technological integration management between private and public schools may be that each teacher only scores their institutions with this scale. The average scores may be very low in some institutions and high in others. This situation reduces the overall average. In addition, since the technology integration management of public schools is managed from a single center (Ministry of National Education, MoNE), public school teachers' perceptions of technology integration management may have yielded equivalent results in all public schools.
- Accordingly, among the private school teachers randomly selected for the study scale, there is a possibility that the number of teachers working in private schools who can do technology integration at a reasonable level is low. Conversely, the number of teachers working in private schools who can do it at a medium and low level is likely to be high. This finding can be shown as the reason why the average is lower than public schools.
- After all, private schools are commercial institutions, and they try to maximize their profits. For this reason, they try to use existing opportunities efficiently instead of investing too much in technology. This situation could negatively influence how teachers view the Management of technology integration.
- Accordingly, private school teachers need more technological products than public school teachers when using educational methods and techniques. Institutions they work for cannot adequately respond to these needs, which may have caused their perception of technology integration management to be low.
- Today's economic difficulties, the high exchange rate, and the significant increase in the prices of technological products, most of which we import, may have negatively affected private schools' investments in technology. Thus, it may have negatively affected teachers' perception of their schools' technology integration management.
- More participants in Dönmez's (2023) study may have positively affected public school teachers' perception of technology integration management.
- Online education systems and portals such as EBA (Eğitim Bilişim Ağı - Education Information Network) and EBA TV established by the state during the recent COVID-19 pandemic may have positively affected public school teachers' perception of technology integration management.
- Services such as the State's FATİH project, EBA, online in-service training portals, and question bank portals created for students may have positively affected public school teachers' perception of technology integration management.

The second question, "Do private school teachers' perceptions of technology integration management differ significantly according to age, gender, type of school, educational status, professional seniority, seniority in the institution, and level of use of educational technologies?" the evaluation of the findings regarding the problem is below.

This study found that private school teachers' perception levels of technology integration management did not differ significantly according to the gender variable. In his study, Dönmez (2023) found a significant difference in the perceptions of public school teachers on technology integration management according to the gender variable. The reason why there are two contradictory results regarding the difference in teachers' perception levels of technology integration management according to the gender variable, these two studies conducted with teachers working in different types of schools can be shown as the fact that private school administrations cover technology integration from their budgets compared to public school administrations. While technology investments are made within the framework of the central government's decisions during the technology integration process in public schools, private school administrations can reveal the exact expectations for all teachers, regardless of gender, since technology investments are covered by each school's budget in private schools.

No significant difference was observed between private school teachers' perceptions of technology integration management and the teachers' educational status in the Analysis / Strategy, Management / Organization, and evaluation sub-dimensions and the general scale dimension. No research has been found on this subject. According to the results of this study, the fact that there is no significant difference in the perceptions of private school teachers on technology integration management may be because the technologies that teachers need in their educational activities and their expectations from the institution are similar, whether they are license or master's degree graduates.

No significant difference was observed between perceptions of private school teachers on technology integration management and teachers' level of use of educational technologies in the Management/Organization and Evaluation sub-dimensions. However, a significant difference was found in the Analysis / Strategy dimension and general scale. According to the results of the "LSD test," it was determined that this difference was in favor of the type of teachers whose level of technology use was "Good." No research has been found on this subject.

According to this result, this significant difference indicates that teachers whose level of using educational technologies is "Good" are more conscious than teachers whose level of using educational technologies is "Medium" in answering the questions in the Analysis/Strategy sub-dimension. However, the expectations on technology integration of teachers whose educational technology level is "Good" may have been more positive in their answers to the questions because they were more straightforward than teachers whose educational technology level was "Very Good." The results of a study show that the gradual integration of technology into the educational process provides a positive change in critical and creative thinking, multidimensional 21st-century skills, and academic achievement of potential teachers (Yılmaz, 2021, pp.189-190). Therefore, teachers with good skills in using educational technologies may have higher critical and creative thinking skills, multidimensional 21st-century skills, and academic achievement.

No significant difference was observed between private school teachers' perceptions of technology integration management and the type of school they worked in the Analysis / Strategy and Management / Organization sub-dimensions.
However, in the Evaluation dimension, a significant difference was found. According to the results of the "LSD test," it was determined that this difference was in favor of the kindergarten school type. Compared to the research conducted by Dönmez (2023), a difference was observed in favor of the secondary school group.

This result may be that the evaluation dimension questions consist of questions that teachers can easily observe in their classrooms rather than on the management side. Kindergarten teachers' perception of technology integration management in the evaluation dimension is higher than primary school, secondary school, and high school teachers. Because of that, kindergarten teachers are constantly present in the classroom compared to other teachers, which may have enabled them to respond positively to these questions. The results of a study highlight that the relationships between digital technology integration and perceived ease of use, perceived usefulness, attitude towards integration, and student engagement help improve the academic performance of undergraduate students (Al-Abdullatif & Gameil, 2021, p.203).

A difference was not observed between private school teachers' perceptions of technology integration management and age in the Analysis / Strategy and Management / Organization, Evaluation sub-dimensions, and the overall scale. Dönmez (2023) found the same result in his research. Regardless of the age of the teachers, they could not see any difference that would attract their attention between the age of technology they live in, the level of technology they use, and the technological integration of the school.

No significant difference was observed between private school teachers' perceptions of technology integration management and professional seniority in the Analysis / Strategy and Management / Organization, Evaluation sub-dimensions, and the overall scale. These results coincide with the results of Dönmez (2023). It can be seen that the educational technology materials that teachers expect from the schools where they work throughout their careers are similar. In addition, the school administration cannot fully meet these expectations or does not adequately inform their teachers on this issue.

No significant difference was observed between private school teachers' perceptions of technology integration management and their seniority in the institution in the Analysis / Strategy and Management / Organization, Evaluation sub-dimensions, and the overall scale. However, in the research conducted by Dönmez (2003) with public school teachers, he concluded that there was a significant difference between the groups in Analysis / Strategy, Evaluation, and scale total in favor of teachers who worked in the same institution for 6-10 years. The different results in private schools between Dönmez's (2003) research in public schools and our research in private schools may be that teachers working in public schools change places by designate in specific periods and can make more objective comparisons according to the schools they worked in before.

This research determined private school teachers' perceptions of their institutions' technology integration management. The results show that, according to private school teachers, the technology integration management experienced in their institutions is at a medium level. Although private schools are considered to be comfortable as schools supported by their resources, according to the results of a study, teachers have a technological expectation for the education and teaching methods and techniques they want from their institutions. However, their institutions cannot fully meet this expectation. In addition, it was found in the study that various obstacles prevent effective technology integration in teaching-learning practices, such as lack of resources, leadership support, accessibility of IT infrastructure, insufficient time, unclear policies, lack of professional development, technical support and appropriate pedagogical models (Akram et al., 2022, p. 8). This situation generally occurs and is also valid for private schools in Turkey. In addition, school administrators need to receive training on ICT integration (A'mar & Eleyan, 2022, p. 793). The findings show that teachers being well-equipped with IT tools and facilities and professional development training programs for teachers are the main factors in the success of technology-based teaching and learning. , these findings should be considered in IT integration from a management perspective, especially in strategic planning and policy-making (Shah, 2022,p.138).

A similar situation for teachers is also valid for faculty. Difficulties can hinder faculty members' technology integration. Faculty members will likely face difficulties such as lack of time and motivation, insufficient technological knowledge, and classroom management problems. In order to make faculty members' technology integration successful, reducing heavy workloads such as administrative tasks or paperwork, increasing support opportunities, and encouraging integration behavior can help them increase their technology knowledge and overcome difficulties. (Sagnak, & Baran, 2021,p.17). Moreover, since the factors affecting faculty members' planned technology integration behavior are related to their intentions, attitudes, subjective norms, and perceived behavioral control, as explained in the theory (Sagnak & Baran, 2021,p.1), a similar situation may also be valid for teachers.

The advantages of private schools over public schools are that they receive fees from their parents in return for education, they can determine their budgets, make their own income and expense accounts, and have the freedom to purchase goods/services. These advantages mean private schools are expected to manage technology integration better than public schools. However, the results of the research show us the exact opposite. The main reason may be that the research evaluated only the institutions where teachers work, not all private schools. It is also because of the number of private schools that reflect technology integration

management better to their teachers less than other schools in this research that perceptions of teachers on technological integration in their schools are at the "undecided" level. Private school administrators have deficiencies in good technological leadership in subjects such as budget allocated to technology, the meetings and seminars they hold about technology, technology planning and team building, in-service training, and encouraging the use of technology. Ultimately, the people who will raise this perception in teachers are school administrators. It is understood that the technological leadership skills of the administrators of the schools where the teachers participating in the research work are at a medium level. The results of a study reveal that the characteristics of the school environment and the society in which the school is located pose the most significant challenges to teachers' efforts to integrate Information Communication Technology (ICT) in their classrooms. Furthermore, the benefits of technology integration are expressed more in terms of importance, practical use, and opportunities offered by ICT (Ifinedo & Kankaanranta, 2021, p.201).

Therefore, context holds an important position in understanding the challenges teachers face in integrating technology into their classrooms. Accordingly, this study found that the TPACK framework is an appropriate guide because of its attention to teachers and context (Ifinedo & Kankaanranta, 2021, p. 202). The macro context is defined as, for example, situations resulting from global or national policies that continue to evolve and ultimately affect teachers. For example, policies such as the Millennium Development Goals and Education for All have been used as a guide to improve teacher education. Accordingly, all teacher educators in Nigeria are expected to be IT-compatible (Federal Ministry of Education [FMED], 2014). The Meso-level factors originate from the school itself and the immediate environment where the school is located. The micro-level consists of the classroom environment and how it may affect the teaching style (Ifinedo & Kankaanranta, 2021, p. 203). Successful technology integration can be influenced at the institutional level by factors such as appropriate policies, teacher participation in the planning process, and the provision of needed facilities (Ifinedo & Kankaanranta, 2021, p. 209). The most prominent challenges from the macro-level context, the infrastructure at the national level, are the features that affect Technology integration. The most prominent features of the meso-level are the problems related to inaccessible/unused/outdated/limited/non-functional facilities. Furthermore, poor curriculum planning and institutional-level policy issues, such as a change in school leadership, sometimes lead to changes in some policies that affect teachers in the long run. The micro-level issues were teacher educators' attitudes, such as 'laziness in preparing slides' and poor IT skills (Ifinedo & Kankaanranta, 2021, pp.207-208).

As teachers perceived a stronger technology vision and commitment to professional development in their school environments, their personal practices and beliefs changed together (Xie et al., 2023, p.281). Managers should equip themselves with technological leadership skills. First, the analysis identified three distinct and naturally occurring profiles of teacher beliefs and technology integration behavior: Low, Medium, and High. These profiles represent the combined characteristics of EDRs' ability beliefs, value beliefs, and teachers' integration behaviors in classrooms. Second, the study identified nuanced changes in teacher technology integration belief and behavior profiles. Such focused analysis allowed us to detect trends within subgroups that would have been overlooked. Third, the study identified relationships between changes in perceived external barriers and teacher transitions across profile groups. Although not an intervention or multilevel design that allows researchers to make definitive causal claims, finding that individual perceptions of external barrier changes predict changes in profile membership provides important information that can inform future studies using such designs. When teachers perceived a stronger vision of technology in their school environment and a commitment to professional development, their personal practices and beliefs changed in tandem. Identifying these nuanced changes and relationships may be critical and practical when designing interventions to improve teachers' daily technology integration practices in K-12 schools (Xie, 2023, pp. 301-302). Accordingly, the study identified the participant teachers' confidence level in using and implementing technology for professional practice as a key outcome influencing teachers' self-efficacy (Gomez et al., 2022, p. 159).

The findings of this study show that teachers' perceptions of technology integration are at a moderate level and that public school teachers have higher perceptions than private school teachers. Therefore, it is seen that centralized applications and digital infrastructure (EBA, FATİH Project) positively affect teacher perceptions in public schools. In contrast, in private schools, the fact that each institution has to produce solutions on its terms causes a decrease in perceptions. As emphasized in the studies of Gomez et al. (2022) and Akram et al. (2022), continuous and research-based professional development (PD) programs are needed to develop teachers' self-efficacy and attitudes toward technology integration. However, for these programs to be effective, teachers must participate voluntarily, and institutions must not only offer these programs but also demonstrate supportive leadership. This study's findings suggest that technology integration management in private schools remains at an "unstable" level in teacher perception due to the lack of sufficient institutional leadership, infrastructure support, and sustainable professional development opportunities. Therefore, training administrators with technology leadership skills in private schools is important in strengthening teacher perceptions and the integration process (A'mar & Eleyan, 2022).

RECOMMENDATIONS

Recommendations for Practitioners

Technology integration perceptions of private school teachers with moderate technology use skills were lower than those of teachers with good technology use skills. In this context, private school administrations can work to improve the technology use of teachers through in-service studies. Technology integration perceptions of high school teachers were lower than that of

kindergarten teachers. Private school administrators can organize in-service training for high school teachers on the use of technology.

Recommendations for researchers

This quantitative research is conducted with private school teachers from different districts of Istanbul. This study, which was conducted with a limited number of demographic variables, can be expanded by adding different variables.
Although there is a significant difference between the technology integration perceptions of high school and kindergarten teachers, there is no significant difference between the technology integration perceptions of secondary school teachers and kindergarten teachers, where subject teachers similar to high school teachers work. This situation can be investigated as a vital gap area, and research can be conducted.

Limitations

The research is limited to the opinions of private school teachers working in private schools across Istanbul in the 2023-2024 academic year. One of the study's other limitations is its generalizability weakness since the number of participants was collected through convenience sampling. Another limitation is that the number of participants consists of accessible participants rather than determining a sample from a universe.

Ethical Approval and Participant Consent: The necessary ethical approval for the study was obtained from Istanbul Sabahattin Zaim University Research Ethics Committee, (Date: 22.01.2024, Ethical Clearance No: E-20292139-050.04-2400003391, 2023/08).

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