



Difficulties of using digital technology and their relationship to the quality of vocational performance among teachers and counselors

Reem AbdElkareem AlOmoush¹
Abdallah M.A. Al-tarawneh²
Somaia Mouneeb Alhossan³
Najah Abdulmajid Khalleeefah Altabeeb⁴
Amany Wahed Tarawneh⁵



(Corresponding Author)

¹Department of Curricula and Methods of Teaching, Yarmouk University, Jordan.

¹Email: reem.alomoush@yu.edu.jo

²Clinical Psychology Department, Al-Ahliyya Amman University, Jordan.

²Email: abd.tarawneh@ammanu.edu.jo

³Princess Rahma University College, Al-Balqa Applied University, Jordan.

³Email: somaia@bau.edu.jo

⁴Department of Special Education, Faculty of Education, University of Tripoli, Libya.

⁴Email: N.atabeeb@uot.edu.ly

⁵Educational Department, Psychological and Educational Counseling, Islamic Community College, Al-Balqa Applied University, Salt, Jordan.

⁵Email: amane.tarawneh@hotmail.com

Abstract

This study aims to identify the difficulties of using digital technology and their relationship to the quality of vocational performance among teachers and counselors. The study sample consisted of 219 teachers and 132 counselors. To examine this, the researchers created a scale for measuring digital difficulties and another one for measuring the quality of vocational performance. The findings revealed no significant differences in the level of challenges with digital technology usage among teachers and counselors when considering variables such as gender and years of experience. There were no statistically significant differences in the quality of vocational performance of teachers based on gender; however, differences were found when considering the variable of years of experience. Conversely, there were no significant differences in the quality of vocational performance of counselors with respect to gender and years of experience. Furthermore, a significant inverse relationship was discovered between the challenges of employing digital technology and the quality of vocational performance among both teachers and counselors. The study recommended using and developing innovative educational methods and programs to meet the needs of teachers and counselors, which ultimately address the educational and psychological needs of students in line with the requirements of the digital age.

Keywords: Counselors, Digital technology, Professional development, Teachers, Vocational quality performance.

Citation | AlOmoush, R. A., Al-tarawneh, A. M. A., Alhossan, S. M., Altabeeb, N. A. K., & Tarawneh, A. W. (2025). Difficulties of using digital technology and their relationship to the quality of vocational performance among teachers and counselors. *Journal of Education and E-Learning Research*, 12(4), 655–663. 10.20448/jeelr.v12i4.7856

History:

Received: 15 July 2025

Revised: 8 September 2025

Accepted: 19 November 2025

Published: 12 December 2025

Licensed: This work is licensed under a [Creative Commons](https://creativecommons.org/licenses/by/4.0/)

Attribution 4.0 License

Publisher: Asian Online Journal Publishing Group

Funding: This study received no specific financial support.

Institutional Review Board Statement: The Ethical Committee of the Ministry of Education, Jordan has granted approval for this study on 29 May 2023 (Ref. No. 3\10\21489).

Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Competing Interests: The authors declare that they have no competing interests.

Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

Contribution of this paper to the literature

The primary contribution of this paper is the exploration of the inverse relationship between challenges posed by digital technology and the quality of vocational performance among teachers and counselors. A novel aspect of this research is the development of two new scales designed to accurately measure these specific variables within these distinct professional groups.

1. Introduction

The increased use of digital technologies in modern educational environments has made them one of the most important assets and constants globally (Bezanilla, Olalla, Castro, & Ruiz, 2019). Educational institutions are significantly seeking to implement initiatives based on digital technology for their various educational activities in order to help create prominent and interactive educational environments capable of accommodating this digitally savvy and distinguished generation (Okoye et al., 2023). Digital technology serves as a crucial tool for empowering educators and counselors, facilitating the enhancement of teaching experiences and learning methods. These technologies positively impact the education process on a large scale by providing continuous and systematic access, offering equal and distinct learning opportunities for learners, and enhancing lifelong learning (Tondeur, Scherer, Siddiq, & Baran, 2020).

Digital technology has now become remarkably widespread, and very important fields, such as mental health, have become significant areas for research through interventions based on digital technology, such as depression, stress, and suicidal tendencies. Researchers have begun developing tools through digital technology to link and strengthen the relationship between people seeking help and professionals who can provide it. The Internet has become a source of psychological consultations, focusing on issues of psychological, emotional, and social support and ways to improve them (Ertl, Aal, Diraoui, Tolmie, & Wulf, 2020).

2. Literature Review

2.1. Difficulties of Digital Technology

The rapid development in the field of digital technologies has provided new and advanced means of sharing knowledge and providing various services in educational institutions. These technologies, including social media (Facebook, Instagram) and digital platforms, such as Zoom and Microsoft Teams, and other online data resources via the Internet, are changing how knowledge is created, managed, and shared under different educational conditions. This, in turn, accelerates these changes based on digital technology to facilitate sharing and exchanging information and knowledge and making appropriate decisions. This matter requires further research to better understand how digital technologies work and influence their use in educational institutions for sharing knowledge that relies on digital technology and the extent of its impact on the quality of vocational performance of individuals (Kwayu, Abubakre, & Lal, 2021).

Notable challenges arise when employing digital technology, particularly those involving ethical dilemmas. These may include concerns about security and confidentiality, a lack of ethical guidance, and consultants' insufficient familiarity with modern technologies. Additionally, some counselors have limited access to technology and are concerned about its use in educational counseling (Situmorang, 2020). Gading (2020) demonstrated that there are weaknesses in direct communication between counselors and students, which led to the emergence of some problems, including a lack of familiarity in the mentoring relationship, a lack of mutual trust, and a lack of visual communication, such as facial expressions and vocal tones, which has resulted in inadequate advancement in the counseling process.

Furthermore, digital technologies contribute to facilitating the transfer and sharing of knowledge by strengthening coordination and communication, improving the effectiveness of decision-making, enhancing positive job performance for individuals, and developing the competitiveness of educational institutions (Wang, Hofkens, & Ye, 2020). However, this has not been fully achieved due to the behavior and work of individuals limited by the use of digital technology and the complex interaction between them in these institutions. These boundaries between different fields often blur and lead to conflict between the areas of work and life, thus negatively affecting the quality of individuals' job performance (Farivar & Richardson, 2021).

Abd Hamid, Syed Hassan, and Ismail (2012) emphasized that the quality and efficiency of teachers lie in their positive impact on student achievement, as well as material benefits provided to them, such as high salary, experience, knowledge, and educational skills employed positively in the classroom. Richardson and Arker (2010) indicated that distinguished teachers have good personal traits, enthusiasm, and motivation that positively influence students' academic achievement.

Teaching requires multiple approaches, such as effort, seriousness, and commitment. Teachers prepare students socially, personally, and educationally to be ready for the labor market and various areas of life. This requires them to have distinctive qualities that enable them to accommodate students' emotional, social, and educational needs (Bonney, Amoah, Micah, Ahiamenyo, & Lemaire, 2015). Darling-Hammond (2000) noted that students are positively influenced during their learning by teachers who treat them fairly and engage them in the classroom. Conversely, negative effects have been observed from unfair teachers who overload students with homework and rely on lecturing rather than participation and discussion. Consequently, the quality of teachers in a school indirectly mirrors and influences the quality of the education system as well as the students' abilities (Hickman, Bartholomew, Mathwig, & Heinrich, 2008).

Emerging digital technologies possess the capability to facilitate learning across various curricula and enhance communication between educators and students in unprecedented ways. While digital tools hold promises for transforming teaching practices, fully harnessing this potential can prove challenging (Bingimlas, 2009). Considering the significance of digital technology in society and future education, recognizing anticipated challenges in infusing these technologies into schools is a crucial and intentional step toward enhancing the quality of teaching and learning. Although teachers recognize the importance of digital technology in schools, they continue to face challenges when implementing these technologies.

There are material difficulties, including insufficient computer equipment or software copies. Other non-material challenges include resistance to change, i.e., resistance to digital technology, lack of knowledge and skills among

teachers, lack of confidence and competence, and time constraints. Incorporating digital technology into the educational process presents a multifaceted challenge fraught with several obstacles. These impediments, often referred to as "barriers," include any condition or factor that hinders progress or the attainment of a goal. Difficulties faced by teachers, including time constraints, lack of confidence, and resistance to change, are associated with school-level obstacles such as insufficient training to address technical issues and restricted access to diverse resources.

2.2. The Quality of Vocational Performance

The quality of vocational performance in teaching refers to the actions, roles, responsibilities, and their implementation by teachers to achieve the goals set by the school. Performance in teaching is one of the most important contributions to the educational process, as it determines teachers' ability to teach and deliver reliable and innovative results in positive learning environments (Ertürk, 2022). Zhu, Zhang, Au, and Yates (2020) indicates that the quality of vocational performance is influenced by teachers' abilities, concepts, skills, and experiences when implementing digital technology in teaching.

From a fundamental perspective, the quality of a teacher's performance is crucial because it involves preparation and confidence in teaching, reflecting one's level of experience, knowledge, technical and pedagogical skills, positive behavior, interpersonal skills, and the ability to skillfully manage and organize the classroom (Abd Hamid et al., 2012).

One of the most important factors that contribute to improving the quality of vocational performance is achieved on the basis of professional competence while performing work at school. Creating a positive work environment for teachers and counselors is one of their most important goals, which is to ensure their job satisfaction in the work environment by organizing their working conditions appropriately, respecting and appreciating their different circumstances, and providing all the material needed for the success of the educational process, such as equipping laboratories and classrooms with various technical and ordinary materials. On the contrary, inappropriate working conditions for teachers and counselors result in a decrease in the quality of their performance (Ertürk, 2022).

On the one hand, digital technology contributes to generating meaning, motivation, and exerting effort while individuals do their work. It affects the individual's well-being and satisfaction with performance at work. Educators adapt to the development of digital technology, which may have positive or negative effects on the learning process and student education (Gallardo, Marqués & Bullen, 2015). Educational institutions use digital technology to enhance the effectiveness of the educational process, such as using it in educational materials, administrative work, monitoring absenteeism, student and teacher achievement, and other educational matters. Teachers benefit from digital technology to enhance and improve their performance by creating creative educational and interactive materials that help students learn, supporting research skills that improve the quality of research, and assisting in administrative work techniques (Bangun et al., 2021).

Various positive and negative patterns of change have emerged due to the digital age, which constitute new challenges for individuals economically, culturally, politically, socially, and educationally. Significant progress in digital technology has led to important changes in various educational fields, thereby improving the quality of learning (Hay & Kinchin, 2008). Good and appropriate technology has a positive and unique impact on the employee's performance during work. However, it is incumbent upon the organization to encourage and support employees by providing training, development, and skills refinement activities, enabling them to acquire the knowledge, information, and competencies required by modern technology. In addition, Park and Cho (2016) stated that applying modern and advanced technology within the organization contributes to the technical development of its members. Ghavifekr and Rosdy (2015) also stated that technical pressures arise when skills and knowledge are low to perform the required task, which significantly impacts the quality of job performance and employee productivity.

Educational innovation constitutes continuous training for teachers and counselors in order to meet the current needs of students and the conditions of the society in which they live. This is due to several factors, most notably the continued developments in digital technology. This leads to a change in the educational field and significant progress in the skills necessary to achieve quality requirements in the performance of teachers and counselors, which positively and effectively reflects on society and the digital capabilities of students (Aguirre, Aperribai, Cortabarría, Verche, & Borges, 2022).

Teachers' readiness and skills in using digital technology play an important role in its effective utilization in the educational process. Accordingly, teachers need to learn appropriate technical skills to apply them in schools. Besides, teachers need insight into the pedagogical role of ICT in order to use it (Ghavifekr and Rosdy (2015).

The use of digital technology by teachers and counselors reduces stress and fatigue, making them more confident in accessing educational resources through digital technology. It may also contribute to enhancing the effectiveness of teachers and counselors in promoting their participation in teaching and the educational and counseling process at a distinct level, setting goals and ambitions, increasing their competence, especially for new teachers, and increasing their sense of motivation and achievement, thereby increasing their satisfaction and job performance (Xu & Jiang, 2022).

Bosone, Chaurand, and Chevrier (2022) expressed that individuals often oppose or dismiss modifications unless they believe these shifts can advantage them. Consequently, it is necessary for educational establishments to inspire their staff to embrace these alterations and implement new technologies. Park and Cho (2016), as well as Dauda and Akingbade (2011), highlighted that contemporary technology comes with its own set of challenges. This includes technological stress, which can diminish the effectiveness of teachers and counselors, leading to a heightened sense of job stress.

This can arise when employees do not possess the necessary skills and abilities required for the task at hand, which can generate fear or unease about potential job loss or replacement by newer technologies.

Therefore, the study's challenge lies in pinpointing the digital obstacles that impede the performance of teachers and counselors. These impediments can be crucial, as they affect their scientific, educational, emotional, and psychological facets. Subsequently, this can either positively or negatively influence educational outcomes and students. Thus, the objective of this study is to investigate the correlation between these significant variables among educators and advisors to address the research gap. This gap manifests as uncertainty and a lack of understanding regarding how this technology impacts the vocational quality of their performance currently and in future scenarios.

More specifically, the study aims to address the following research questions:

- Q1. Is there variation in the level of difficulty in utilizing digital technology among teachers and counselors based on gender and years of experience, with a significance level of ($\alpha \leq 0.05$)?
- Q2. Does the quality of vocational performance among teachers and counselors differ by gender and years of experience at a significance level of ($\alpha \leq 0.05$)?
- Q3. Is there a statistically significant correlation between the challenges encountered in using digital technology and the quality of vocational performance among teachers and counselors?

3. Materials and Methods

3.1. Study Participants

After excluding the members of the survey sample, the study tools were applied to a random sample selected from public schools affiliated with the education directorates in the capital Amman Governorate, consisting of 219 teachers and 132 student counselors. The online distributed questionnaires were sent to the participants of the study. Table 1 below exhibits the distribution of the study participants based on their variables.

Table 1. Distribution of study sample by variables.

Variable	Categories	Job		
		Teacher	Counselor	Total
Gender	Males	63	46	109
	Females	156	86	242
	Total	219	132	351
Years of experience	Less than 5	55	53	108
	From 5-10	101	40	141
	More than 10	63	39	102
	Total	219	132	351

3.2. Study Instrument

In pursuit of the study's objectives, the researchers devised study instruments comprising a scale assessing difficulties encountered in utilizing digital technology, a scale evaluating the quality of vocational performance of teachers, and a scale appraising the quality of vocational performance of counselors. These instruments were developed based on theoretical literature and prior investigations related to the subject, including studies conducted by Abd Hamid et al. (2012), Karami and Choupani (2020), and Ekpang (2015).

The scale of difficulties in using digital technology included 26 items in its final form, while the scale that assesses the quality of vocational performance of teachers included 35 items, and the scale of the quality of vocational performance of counselors included 35 items.

Table 2 illustrates how the items of the study tools are distributed.

Table 2. Distribution of items of the study instrument across their fields.

Instrument	Number of items
Difficulties in using digital technology	26
The quality of vocational performance of teachers'	35
The quality of vocational performance of counselors'	35

The study instrument was designed according to Likert's five-point scale, consisting of five options: Strongly Agree: 5, Agree: 4, Neutral: 3, Disagree: 2, Strongly Disagree: 1.

3.3. Instrument Validity and Reliability

3.3.1. Face Validity

In order to verify the face validity of the study instrument and its appropriateness for meeting the study's objectives, the initial versions of these tools were showcased to a panel of experts from universities. These experts specialized in counseling psychology, psychology, measurement, and evaluation. They were then asked for their views on each item's pertinence to its related dimension, language phrasing, and clarity. Furthermore, they were also solicited for any recommended additions, alterations, or removals they found suitable. The researchers set a benchmark of an agreement rate of 80% or higher to retain an item, and any item that fell below this was either removed or amended.

The suggestions made by the experts were taken into consideration and implemented where necessary. The researchers posit that this incorporation of changes not only substantiates the validity of the study tools but also reinforces the reliability of their outcomes.

3.3.2. Internal Consistency Reliability

The internal coherence of the study tools was evaluated using the internal consistency method, which falls under the construct validity methods category.

The researchers computed the Pearson correlation coefficient between each item of the scale and the total scale score.

The results of this evaluation are displayed in Table 3.

Table 3. Pearson correlation coefficient between each item of the tool and the total score.

Difficulties in using digital technology		The quality of vocational performance of teachers		The quality of vocational performance of counselors'	
Item No.	Correlation with the total score	Item No.	Correlation with the total score	Item No.	Correlation with the total score
1	0.55*	1	0.72*	1	0.43*
2	0.49*	2	0.42*	2	0.59*
3	0.39*	3	0.60*	3	0.70*
4	0.61*	4	0.61*	4	0.80*
5	0.47*	5	0.72*	5	0.60*
6	0.49*	6	0.44*	6	0.73*
7	0.63*	7	0.48*	7	0.72*
8	0.50*	8	0.44*	8	0.66*
9	0.60*	9	0.41*	9	0.49*
10	0.81*	10	0.38*	10	0.44*
11	0.63*	11	0.60*	11	0.62*
12	0.62*	12	0.53*	12	0.70*
13	0.49*	13	0.58*	13	0.40*
14	0.66*	14	0.55*	14	0.68*
15	0.79*	15	0.48*	15	0.51*
16	0.52*	16	0.69*	16	0.61*
17	0.76*	17	0.55*	17	0.71*
18	0.69*	18	*0.63	18	0.39*
19	0.58*	19	0.69*	19	0.55*
20	0.50*	20	0.61*	20	0.69*
21	0.61*	21	0.48*	21	0.61*
22	0.66*	22	0.70*	22	0.48*
23	0.53*	23	0.86*	23	0.70*
24	0.65*	24	0.68*	24	0.86*
25	0.55*	25	0.51*	25	0.68*
26	0.69*	26	0.67*	26	0.51*
		27	0.72*	27	0.67*
		28	0.39*	28	0.53*
		29	0.80*	29	0.44*
		30	0.72*	30	0.62*
		31	0.81*	31	0.70*
		32	0.82*	32	0.40*
		33	0.68*	33	0.68*
		34	0.49*	34	0.66*
		35	0.60*	35	0.53*

Note: *significant at the (0.05) level.

Table 3 reveals that all correlation coefficients between each item of the tools and the total score are statistically significant at the significance level ($\alpha \leq 0.05$). This indicates the validity of the internal consistency of the study tools, thereby enhancing the dependability of their outcomes.

3.4. Reliability of Study Tools

In order to verify the reliability of the study tools, the researchers implemented them on a sample of 30 individuals. Following data collection, reliability was evaluated using Cronbach's Alpha coefficient for internal consistency. The results are displayed in Table 4.

Table 4. Reliability coefficients of study tools.

Tool	Cronbach's alpha coefficient
Difficulties in using digital technology	0.90
The quality of teachers' vocational performance.	0.89
The quality of vocational performance of counselors.	0.92

The findings presented in Table 4 indicate that the reliability coefficient for the tool "Difficulties in Using Digital Technology" reached 0.90, whereas the coefficient for "the Quality of Vocational Performance of Teachers" was 0.89. Moreover, the coefficient for "the Quality of Vocational Performance of Counselors" stood at 0.92. These values are considered satisfactory for the objectives of the present study.

4. Results of The Study

This section of the research encompasses a comprehensive presentation of the findings in relation to the research questions. Additionally, it involves a discourse on the study outcomes and their interpretation within the framework of extant research literature.

4.1. Results of the First Research Question

Is there variation in the level of difficulty in utilizing digital technology among teachers and counselors based on gender and years of experience, with a significance level of ($\alpha \leq 0.05$)?

To answer this question, a Two-Way ANOVA was conducted for both the category of teachers and the category of counselors. The following presentation and Table 4 and 5 show the results.

4.1.1. Teachers' Category

Two-Way ANOVA was performed to identify variances in the degree of challenges encountered by teachers in using digital technology, based on the gender and years of experience variables. The results are displayed in Table 5.

Table 5. Results of Two-Way ANOVA on the level of difficulties in using digital technology among teachers according to the variables of gender and years of experience.

Source of variation	Sum of squares	Degrees of freedom	Mean square	F value	Significance level
Gender	140.575	1	140.575	0.8520	0.3570
Years of experience	184.689	2	92.344	0.5600	0.5720
Error	35630.113	216	164.954		
Total	1992467.000	220			
Corrected total	35930.595	219			

Table 5 showcases data that suggest there are no statistically significant differences at the significance level ($\alpha \leq 0.05$) in the extent of challenges faced by teachers in using digital technology, based on gender and years of experience variables.

4.1.2. Counselors' Category

Two-way ANOVA was conducted to identify differences in the degree of challenges encountered by consultants in implementing digital technology, contingent on gender and years of experience variables. The outcomes are illustrated in Table 6.

Table 6. Results of Two-Way ANOVA in the level of difficulties in using digital technology among counselors according to the variables of gender, years of experience.

Source of variation	Sum of squares	Degrees of freedom	Mean square	F Value	Significance level
Gender	9.391	1	9.391	0.0320	0.8580
Years of experience	147.872	2	73.936	0.2530	0.7760
Error	37333.495	128	291.668		
Total	1296801.000	132			
Corrected total	37486.992	131			

The data presented in Table 6 suggests there are no statistically significant differences at the significance level ($\alpha \leq 0.05$) in the extent of difficulties faced by counselors when using digital technology, based on variables such as gender and years of experience.

4.2. Results of the Second Research Question

Does the quality of vocational performance among teachers and counselors differ by gender and years of experience at a significance level of ($\alpha \leq 0.05$)?

To address this question, a two-way ANOVA was conducted considering both the teacher category and the counselor's category. The results are explained as follows.

4.2.1. Teachers' Category

A two-way ANOVA was conducted to identify variations in the quality of vocational performance among teachers based on gender and years of experience variables. The outcomes are illustrated in Table 7.

Table 7. Results of Two-Way ANOVA to detect differences in the quality of vocational performance of teachers according to the variables of gender and years of experience.

Source of variation	Sum of squares	Degrees of freedom	Mean square	F value	Significance level
Gender	1464.637	1	1464.637	2.712	0.1010
Years of experience	4124.549	2	2062.274	3.819	0.0230
Error	116648.633	216	540.040		
Total	3264770.000	220			
Corrected total	123115.000	219			

The information provided in Table 7 suggests that there are no statistically significant variances in the quality of vocational performance of teachers based on gender at the significance level ($\alpha \leq 0.05$). However, differences were observed concerning the variable years of experience. To ascertain the group favored by these variances, a Scheffé post hoc test was employed, and the outcomes are depicted in Table 8.

Table 8. Scheffé test to detect differences according to the years of experience variable.

Arithmetic means	Categories of the variable of experience	Difference		
		Less than 5 years	5-10 years	More than 10 years
3.17	Less than 5 years	-	-0.32*	-0.34*
3.49	5-10 years	0.32*	-	-0.02
3.51	More than 10 years	0.34*	0.02	-

Note: *significant at the significance level (0.05).

The data shown in Table 8 suggests the differences per the years of experience variable were inclined towards those with more experience.

4.2.2. Counselors' Category

A Two-Way ANOVA was carried out to identify differences in the quality of vocational performance among teachers based on gender and years of experience variables. The results are illustrated in Table 9.

Table 9. Results of Two-Way ANOVA to reveal differences in the vocational quality of performance among counselors according to the variables of gender and years of experience.

Source of variation	Sum of squares	Degrees of freedom	Mean square	F value	Significance level
Gender	1992.178	1	1992.178	2.275	0.1340
Years of experience	393.491	2	196.746	0.2250	0.7990
Error	112066.208	128	875.517		
Total	2171408.000	132			
Corrected total	114903.636	131			

The data presented in Table 9 suggests that there are no statistically significant differences at the significance level ($\alpha \leq 0.05$) in the quality of vocational performance among counselors, based on gender and years of experience variables.

4.3. Results of the Third Research Question

Is there a statistically significant correlation between the challenges encountered in using digital technology and the quality of vocational performance among teachers and counselors?

In response to this question, the Pearson correlation coefficient was computed between the challenges of implementing digital technology and the quality of vocational performance, along with the coefficient of determination (R^2). This was assessed at the level of both teacher and counselor categories.

The information presented in Table 10 suggests an inverse and statistically significant correlation between the challenges of employing digital technology and the quality of vocational performance for both teachers and counselors are significant factors to consider. For teachers, the correlation coefficient was measured at -0.42 between the difficulties of using digital technology and the quality of vocational performance, with a coefficient of determination of 0.17. This indicates that understanding the degree of difficulties in utilizing digital technology accounts for 17% of the variance in the quality of vocational performance among teachers. Similarly, the results show that the correlation coefficient between the difficulties of using digital technology and the quality of vocational performance of counselors was -0.68, with a coefficient of determination of 0.46. This suggests that the understanding of the degree of difficulties in using digital technology explains 46% of the variance in the quality of vocational performance among counselors. The negative relationship implies that as difficulties increase, the vocational quality of performance decreases.

Table 10. Pearson correlation coefficient between difficulties in using digital technology and vocational quality of performance.

Category	Pearson correlation coefficient	Significance level	Coefficient of determination (R^2)
Teachers	-0.42	0.012*	0.17
Counselors	-0.68	0.00**	0.46

Note: * Statistically significant at the significance level ($\alpha \leq 0.05$).
** Statistically significant at the significance level ($\alpha \leq 0.01$).

5. Discussion

5.1. Discussion of the First Question Results

Table 5 displays data that suggests no significant contrasts, at a significance level of ($\alpha \leq 0.05$), in the challenges faced when using digital technology between teachers and counselors regardless of their gender or years of experience. This could be due to the shared social, environmental, and educational situations in which both teachers and counselors are embedded, as well as their mutual access to the same available technological resources. The data also suggests that the school setting where teachers operate is suitable and accommodating for them, regardless of their varied experiences. It provides an environment where they can capitalize on their knowledge, competencies, readiness, and abilities, irrespective of their gender. The infrastructure and educational conditions in the same schools are largely similar. These results differ from the studies of Hay and Kinchin (2008) and Chedid, Dew, and Veitch (2013), which indicated that gender and experience affect teachers' use of technology in schools. The studies indicate that there are difficulties affecting the integration of technology and the extent of the influence of teaching experience. Additionally, factors such as gender, age, and electronic training have a significant impact on how teachers use computers.

5.2. Discussion of the Second Question Results

Table 7 reveals no statistical differences in teacher quality of vocational performance based on gender, at a significance level of $\alpha \leq 0.05$. However, distinctions were evident concerning the variable of years of experience. To identify the reason behind these differences, a post hoc comparison test (Scheffé test) was implemented. The findings displayed in Table 8 suggest that teachers, irrespective of their gender, exhibit a similar quality of vocational performance. This might be because they have undergone the same training and diverse educational courses and have been allocated similar tasks and responsibilities, leading to a comparable outcome in their performance. Meanwhile, the differences were in favor of those with more experience, which can be attributed to the cumulative educational experiences to which these teachers were exposed and that they used old and new educational methods in teaching, unlike those with less experience. Gading (2020) highlighted that a teacher's proficiency and understanding of technology can significantly impact the quality of their instructional performance when using digital technology.

The findings outlined in Table 9 suggests that, at the significance level ($\alpha \leq 0.05$), there are no statistically significant differences in the quality of vocational performance of counselors based on gender and years of experience variables. This outcome may be attributed to the comparable training courses undertaken by both male and female counselors, leading to similar skill acquisition. In addition, they work in similar school environments with different

conditions. The level of experience also did not differ due to the similar cases they deal with among students in terms of recurring problems and similar circumstances, for which they use the same therapeutic and counseling methods, including preventive and guidance programs depending on each case. They hold the same qualifications and participate in the same training courses that refine their skills to positively deal with students. Tabroni, Maryani, and Sari (2022) asserted that a positive work setting for teachers and counselors positively enhances their job satisfaction and boosts their performance. The quality of work for teachers and counselors directly affects working conditions, job satisfaction, productivity, administrative processes, and social relations within schools.

5.3. Discussion of the Third Question Results

The findings reveal a significant reverse correlation between the challenges of using digital technology and the quality of vocational performance among teachers and counselors. This suggests that an increase in digital difficulties results in a decline in the positive performance of both teachers and counselors. This is due to the challenge of keeping pace with technological advancements, which would benefit students if employed appropriately by educators. Virtual classrooms lack real interaction and integration between educators and students due to the lack of resources, confidentiality, and security, in addition to the weak ethical guidance. Gading (2020) pointed out in his study that there are weaknesses in direct communications between counselors and students. Difficulties experienced individually by teachers and counselors, such as time constraints, lack of self-assuredness, and reluctance to adapt, starkly differ from problems at the school level. These include inadequate effective training to resolve technical issues and restricted availability of resources. Baskaran, Lay, Ming, and Mahadi (2020) suggested that technical pressures arise when relevant skills and knowledge are deficient to carry out the necessary tasks, having a substantial effect on job performance and productivity. Digital technology difficulties do have a negative impact on the quality of vocational performance educators' (Farivar & Richardson, 2021).

6. Conclusions and Recommendations

In spite of the widespread accessibility of the Internet and technology, not all teachers and counselors have access to what they need to successfully integrate digital learning. This was demonstrated by the results of many studies that have shown the correlation between this issue and the quality of vocational performance, which ultimately affects educational outcomes that are supposed to be positive and consistent with the contemporary era. It is preferable to use and develop innovative educational methods and programs to meet the needs of teachers and counselors, which ultimately address the educational and psychological needs of students in line with the requirements of the digital age. Effective strategies should be implemented to reduce the difficulties facing electronic academic guidance and develop appropriate creative solutions for them. The Ministry of Education should work to equip and develop the infrastructure for modern technological educational services and update them in an innovative and continuous manner.

References

- Abd Hamid, S. R., Syed Hassan, S. S., & Ismail, N. A. H. (2012). Teaching quality and performance among experienced teachers in Malaysia. *Australian Journal of Teacher Education*, 37(11), 85–103. <https://doi.org/10.14221/ajte.2012v37n11.2>
- Aguirre, T., Aperribai, L., Cortabarria, L., Verche, E., & Borges, Á. (2022). Challenges for teachers' and students' digital abilities: A mixed methods design study. *Sustainability*, 14(8), 4729. <https://doi.org/10.3390/su14084729>
- Bangun, Y. R., Pritasari, A., Widjaja, F. B., Wirawan, C., Wisesa, A., & Ginting, H. (2021). Role of happiness: Mediating digital technology and job performance among lecturers. *Frontiers in Psychology*, 12, 593155. <https://doi.org/10.3389/fpsyg.2021.593155>
- Baskaran, S., Lay, H. S., Ming, B. S., & Mahadi, N. (2020). Technology adoption and employee's job performance: An empirical investigation. *International Journal of Academic Research in Economics and Management Sciences*, 9(1), 42–66. <https://doi.org/10.6007/IJAREMS/v9-i1/7443>
- Bezanilla, M. J., Olalla, A. M. G., Castro, J. P., & Ruiz, M. P. (2019). A model for the evaluation of competence-based learning implementation in higher education institutions: Criteria and indicators. *Tuning Journal for Higher Education*, 6(2), 127–174. [https://doi.org/10.18543/tjhe-6\(2\)-2019pp127-174](https://doi.org/10.18543/tjhe-6(2)-2019pp127-174)
- Bingimlas, K. A. (2009). Barriers to the successful integration of ICT in teaching and learning environments: A review of the literature. *Eurasia Journal of Mathematics, Science and Technology Education*, 5(3), 235–245. <https://doi.org/10.12973/ejmste/75275>
- Bonney, E. A., Amoah, D. F., Micah, S. A., Ahiamenyo, C., & Lemaire, M. B. (2015). The relationship between the quality of teachers and pupils academic performance in the STMA junior high schools of the Western Region of Ghana. *Journal of Education and Practice*, 6(24), 139–150.
- Bosone, L., Chaurand, N., & Chevrier, M. (2022). To change or not to change? Perceived psychological barriers to individuals' behavioural changes in favour of biodiversity conservation. *Ecosystems and People*, 18(1), 315–328. <https://doi.org/10.1080/26395916.2022.2071343>
- Chedid, R. J., Dew, A., & Veitch, C. (2013). Barriers to the use of information and communication technology by occupational therapists working in a rural area of New South Wales, Australia. *Australian Occupational Therapy Journal*, 60(3), 197–205. <https://doi.org/10.1111/1440-1630.12016>
- Darling-Hammond, L. (2000). Teacher quality and student achievement. *Education Policy Analysis Archives*, 8(1), 1–44. <https://doi.org/10.14507/epaa.v8n1.2000>
- Dauda, Y. A., & Akingbade, W. A. (2011). Technological change and employee performance in selected manufacturing industry in Lagos State of Nigeria. *Australian Journal of Business and Management Research*, 1(5), 32–43. <http://doi.org/10.52283/NSWRCA.AJBMR.20110105A05>
- Ekpong, P. U. (2015). Counselling for effective work performance: A way for service improvement. *IOSR Journal of Humanities and Social Science*, 20(3), 39–43.
- Ertl, T., Aal, K., Diraoui, H., Tolmie, P., & Wulf, V. (2020). *Psychosocial ICT: The potential, challenges and benefits of self-help tools for refugees with negative mental stress*. Paper presented at the Proceedings of the 18th European Conference on Computer-Supported Cooperative Work (ECSCW 2020) – Exploratory Papers. Siegen, Germany.
- Ertürk, R. (2022). The effect of teachers' quality of work life on job satisfaction and turnover intentions. *International Journal of Contemporary Educational Research*, 9(1), 191–203. <https://doi.org/10.33200/ijcer.1022519>
- Farivar, F., & Richardson, J. (2021). Workplace digitalisation and work-nonwork satisfaction: The role of spillover social media. *Behaviour & Information Technology*, 40(8), 747–758. <https://doi.org/10.1080/0144929X.2020.1723702>
- Gading, I. K. (2020). The development of cyber counseling as a counseling service model for high school students in the digital age. *Jurnal Pendidikan Indonesia*, 9(2), 301–313. <https://doi.org/10.23887/jpi-undiksha.v9i2.25469>
- Gallardo, E. E., Marqués, M. L., & Bullen, M. (2015). Students in higher education: Social and academic uses of digital technology. *International Journal of Educational Technology in Higher Education*, 12(1), 25–37.

- Ghavifekr, S., & Rosdy, W. A. W. (2015). Teaching and learning with technology: Effectiveness of ICT integration in schools. *International Journal of Research in Education and Science*, 1(2), 175-191.
- Hay, D., & Kinchin, I. (2008). Using concept mapping to measure learning quality. *Education+ Training*, 50(2), 167-182. <https://doi.org/10.1108/00400910810862146>
- Hickman, G. P., Bartholomew, M., Mathwig, J., & Heinrich, R. S. (2008). Differential developmental pathways of high school dropouts and graduates. *The Journal of Educational Research*, 102(1), 3-14. <https://doi.org/10.3200/JOER.102.1.3-14>
- Karami, M., & Choupani, M. (2020). Successful counselors' perceptions of the performance dimensions of therapeutic competence: A qualitative research. *Journal of Qualitative Research in Health Sciences*, 9(2), 79-90. <https://doi.org/10.22062/jqr.2020.91157>
- Kwayu, S., Abubakre, M., & Lal, B. (2021). The influence of informal social media practices on knowledge sharing and work processes within organizations. *International Journal of Information Management*, 58, 102280. <https://doi.org/10.1016/j.ijinfomgt.2020.102280>
- Okoye, K., Hussein, H., Arrona-Palacios, A., Quintero, H. N., Ortega, L. O. P., Sanchez, A. L., . . . Hosseini, S. (2023). Impact of digital technologies upon teaching and learning in higher education in Latin America: An outlook on the reach, barriers, and bottlenecks. *Education and Information Technologies*, 28(2), 2291-2360. <https://doi.org/10.1007/s10639-022-11214-1>
- Park, H.-J., & Cho, J.-S. (2016). The influence of information security technostress on the job satisfaction of employees. *Journal of Business and Retail Management Research*, 11(1), 66-75.
- Richardson, R. C., & Arker, E. (2010). Personalities in the classroom: Making the most of them. *Kappa Delta Pi Record*, 46(2), 76-81. <https://doi.org/10.1080/00228958.2010.10516698>
- Situmorang, D. D. B. (2020). Online/cyber counseling services in the COVID-19 outbreak: Are they really new? *Journal of Pastoral Care & Counseling*, 74(3), 166-174. <https://doi.org/10.1177/1542305020948170>
- Tabroni, I., Maryani, A. H., & Sari, R. P. (2022). Teacher performance improvement in building quality education. *Al-Abshar: Journal of Islamic Education Management*, 1(1), 1-16. <https://doi.org/10.58223/al-abshar.v1i1.6>
- Tondeur, J., Scherer, R., Siddiq, F., & Baran, E. (2020). Enhancing pre-service teachers' technological pedagogical content knowledge (TPACK): A mixed-method study. *Educational Technology Research and Development*, 68(1), 319-343. <https://doi.org/10.1007/s11423-019-09692-1>
- Wang, M.-T., Hofkens, T., & Ye, F. (2020). Classroom quality and adolescent student engagement and performance in mathematics: A multi-method and multi-informant approach. *Journal of Youth and Adolescence*, 49(10), 1987-2002. <https://doi.org/10.1007/s10964-020-01195-0>
- Xu, P., & Jiang, Y. (2022). Information and communication technology use on new generation teachers' job satisfaction and psychological emotion. *Frontiers in Psychology*, 13, 941218. <https://doi.org/10.3389/fpsyg.2022.941218>
- Zhu, Y., Zhang, J. H., Au, W., & Yates, G. (2020). University students' online learning attitudes and continuous intention to undertake online courses: A self-regulated learning perspective. *Educational Technology Research and Development*, 68(3), 1485-1519. <https://doi.org/10.1007/s11423-020-09753-w>