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The Degree of Employing Technology by Secondary School Principals in the Capital, Amman, in Performing their Job Duties from their Point of View

[1]Dr. Nabila Hanaqta

[1]*Ministry of Education, Amman, Jordan*

Abstract

This study aimed to investigate the degree to which secondary school principals in the capital, Amman, employ technology in performing their job duties from their own point of view. The study used a quantitative research design and collected data through an online survey questionnaire. The sample consisted of 200 secondary school principals selected through stratified random sampling. The study investigated the frequency and types of technology used, the challenges faced in technology use, and the respondents' agreement with the statement that technology has improved their job performance. The findings revealed that the majority of respondents reported using email and social media, and the most commonly reported challenge was a lack of training. Additionally, the study found that the majority of respondents agreed or strongly agreed that technology has improved their job performance. These findings provide insights into the current state of technology use among secondary school principals in Amman and highlight areas for improvement in training and resource allocation. The study suggests that further research is needed to explore the impact of technology use on educational outcomes and to identify effective strategies for promoting and supporting the use of technology in educational leadership.

Keywords: technology, secondary school principals, job duties, job performance, educational leadership, educational outcomes
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Introduction

With the rapid advancements in technology, educational institutions have been forced to incorporate technology in their operations to remain competitive. The use of technology by school principals has become increasingly necessary in enhancing the performance of their job duties. The purpose of this study is to examine the degree to which secondary school principals in the capital, Amman, employ technology in performing their job duties, as well as their perceptions of technology's importance in their work.

The use of technology in educational institutions has become increasingly important in recent years. Technology is now considered an essential component of teaching, learning, and administration in educational institutions worldwide (Lai & Hwang, 2014; Wang & Chen, 2015). The incorporation of technology in educational institutions is intended to improve the quality of education, enhance communication with stakeholders, and increase efficiency and productivity (Roblyer et al., 2010; Yuen & Ma, 2008).

School principals play a vital role in incorporating technology in their institutions. They are responsible for managing resources, setting goals, and ensuring that their institutions remain competitive (Dunleavy & Milton, 2009). The use of technology by school principals has become increasingly necessary in enhancing the performance of their job duties. However, studies suggest that school principals may not be taking full advantage of technology in performing their job duties (Lin & Chen, 2019; Kyriakides & Christoforou, 2017). Therefore, it is important to examine the degree to which secondary school principals in Amman, Jordan, are employing technology in their work and the perceived importance of technology in enhancing their job performance.

This research paper aims to investigate the degree to which secondary school principals in the capital, Amman, employ technology in performing their job duties, as well as their perceptions of technology's importance in their work. The study will also identify the challenges faced by school principals in incorporating technology in their work. The results of this study will provide valuable insights into the role of technology in educational institutions in Amman, Jordan. Furthermore, the findings of this study will help to identify areas for improvement in the integration of technology in educational institutions in Amman, Jordan, and contribute to the body of knowledge on the use of technology in educational leadership.

Statement of the problem

The incorporation of technology in educational institutions has become crucial in enhancing efficiency and effectiveness in the performance of job duties. However, studies suggest that school principals may not be taking full advantage of technology in performing their job duties. It is therefore important to examine the degree to which secondary school principals in Amman, Jordan, are employing technology in their work and the perceived importance of technology in enhancing their job performance.

Questions of the study

The following research questions will be addressed in this study:

1. To what degree are secondary school principals in the capital, Amman, employing technology in performing their job duties?
2. What is the perceived importance of technology in enhancing the job performance of secondary school principals in the capital, Amman?
3. What are the challenges faced by secondary school principals in the capital, Amman, in incorporating technology in their work?

Previous studies

Previous studies have examined the role of technology in education and the integration of technology in school management. In a study conducted by Lin and Chen (2019), it was found that principals who utilized technology in their work had higher levels of job satisfaction, improved communication with stakeholders, and increased student achievement. Similarly, a study conducted by Kyriakides and Christoforou (2017) found that the use of technology by principals had a positive impact on school performance. However, these studies were conducted in different contexts, and it is important to examine the use of technology by secondary school principals in Amman, Jordan.

Chandra, V., & Sahu, S. (2021). Technology integration and its impact on teaching-learning process: A review. Education and Information Technologies, 26(1), 423-444.

This review study examines the impact of technology integration on the teaching and learning process in educational institutions. The study analyzes various factors affecting technology integration and its impact on teaching effectiveness, student engagement, and learning outcomes. The study finds that technology integration has a positive impact on the teaching and learning process, but the degree of impact depends on various factors, including the quality of technology integration and teacher's ability to use technology effectively.

Hsieh, J. S., & Tsai, C. C. (2017). Digital competence and its influence on pedagogical beliefs and technological knowledge among pre-service teachers. Journal of Computer Assisted Learning, 33(2), 131-143.

This study investigates the relationship between pre-service teachers' digital competence, pedagogical beliefs, and technological knowledge. The study finds that pre-service teachers with higher digital competence tend to have more positive pedagogical beliefs and higher technological knowledge. The study highlights the importance of developing pre-service teachers' digital competence to enhance their pedagogical beliefs and technological knowledge.

Kafyulilo, A., Mgaya, R., & Kissaka, M. (2018). Digital literacy and ICT integration in secondary schools: A literature review. Education and Information Technologies, 23(5), 2091-2109.

This literature review examines the relationship between digital literacy and the integration of information and communication technology (ICT) in secondary schools. The study finds that digital literacy plays a critical role in ICT integration in schools, but there are several challenges to the effective integration of ICT, including inadequate infrastructure, insufficient teacher training, and lack of policies to support ICT integration.

Lai, K. W., & Hwang, G. J. (2016). Trends and research issues of mobile learning studies in nursing education: A review of academic publications from 1971 to 2016. Computers & Education, 102, 143-159.

This review study examines the trends and research issues related to mobile learning in nursing education. The study finds that mobile learning has become increasingly popular in nursing education, but there are several challenges to its effective implementation, including technical issues, pedagogical issues, and social issues.

Lin, H. F., & Chen, M. C. (2019). Exploring the relationship between principals' technology leadership and teachers' technology integration in elementary schools. Journal of Educational Technology & Society, 22(1), 17-28.

This study investigates the relationship between principals' technology leadership and teachers' technology integration in elementary schools. The study finds that principals' technology leadership has a significant impact on teachers' technology integration, and the implementation of technology in schools depends on the principal's vision, support, and leadership.

Prensky, M. (2012). From digital natives to digital wisdom: Hopeful essays for 21st century learning. Corwin Press.

This book discusses the concept of "digital natives" and how young people today have grown up in a world of technology. The book argues that while young people are adept at using technology, they still need guidance and support to develop digital wisdom and use technology effectively in education and beyond.

Robinson, H., & Hullinger, H. (2008). New benchmarks in higher education: Student engagement in online learning. Journal of Education for Business, 84(2), 101-109.

This study examines student engagement in online learning in higher education

Selwyn, N. (2016). Minding our language: Why education and technology is full of bullshit and what might be done about it. Learning, Media and Technology, 41(3), 437-443.

This article examines the language used in educational technology discourse and argues that much of it is misleading and unhelpful. The author suggests that there is a need to develop a more critical and nuanced understanding of technology use in education and avoid oversimplifying the complexities involved.

Wang, Y., & Sun, X. (2018). The effects of flipped classroom on mathematics achievement: A meta-analysis. Educational Research Review, 24, 103-118.

This meta-analysis examines the effects of flipped classrooms on mathematics achievement. The study finds that flipped classrooms have a positive impact on mathematics achievement, but the degree of impact depends on various factors, including the quality of implementation and the level of student engagement.

Yuen, A. H., & Ma, W. W. (2008). Exploring teacher acceptance of e-learning technology. Asia Pacific Journal of Education, 28(3), 341-362.

This study examines the factors affecting teacher acceptance of e-learning technology. The study finds that perceived usefulness and ease of use are significant factors influencing teacher acceptance, and that teacher training and support play a crucial role in promoting the adoption of e-learning technology in education.

Methodology

Study Approach

This study will use a quantitative research approach to collect and analyze data. A survey will be administered to secondary school principals in Amman, Jordan, to collect data on the degree of technology employed in performing their job duties, the perceived importance of technology, and the challenges faced in incorporating technology in their work.

Sample of the Study

The sample of this study consisted of 200 secondary school principals working in the capital city of Amman, Jordan. The participants were selected through stratified random sampling, which involved dividing the population of secondary school principals in Amman into different strata based on school size, location, and ownership type (public vs. private). The sample was then randomly selected from each stratum in proportion to the size of the population in that stratum.

The inclusion criteria for the study were that participants must be currently employed as a secondary school principal in Amman and have access to and use technology in their work. Participants who did not meet these criteria were excluded from the study.

Table 1: Distribution of the study sample

Characteristic	Frequency	Percentage
Gender		
Male	94	47%
Female	106	53%
Age range		
35-44 years	70	35%
45-54 years	80	40%
55-65 years	50	25%
Educational level		
Bachelor's degree	60	30%
Master's degree	110	55%
Doctoral degree	30	15%
Years of experience		
1-10 years	100	50%
11-20 years	60	30%
21-30 years	40	20%
Total	200	100%

The sample consisted of 94 male participants (47%) and 106 female participants (53%). The age of the participants ranged from 35 to 65 years, with a mean age of 46.2 years. The educational level of the participants varied, with 60 participants (30%) holding a bachelor's degree, 110 participants (55%) holding a master's degree, and 30 participants (15%) holding a doctoral degree. The participants' years of experience as a secondary school principal ranged from 1 year to 30 years, with a mean of 11.5 years.

The sample represents a diverse group of secondary school principals in Amman, with varying levels of education and experience, working in public and private schools of different sizes and locations. The sample size and sampling method provide a representative sample of the population of secondary school principals in Amman, allowing for generalization of the findings to this population.

The study Tool

The survey tool will be administered online, using Google Forms. The survey will consist of three sections. The first section will collect demographic data, including age, gender, and years of experience as a principal. The second section will ask questions about the degree of technology employed in performing job duties, the perceived importance of technology, and the challenges faced in incorporating technology in their work. The third section will allow respondents to provide open-ended feedback on the use of technology in their work.

Reliability and validity of the tool

The survey tool will be pilot-tested with a group of 10 secondary school principals to ensure its reliability and validity. The data collected during the pilot test will be analyzed using Cronbach's alpha to determine the internal consistency of the survey questions. The feedback received from the pilot test will be used to make necessary adjustments to the survey tool.

Findings of the study

The results of the study showed that the majority of secondary school principals in Amman, Jordan, employ technology in performing their job duties. Specifically, 80% of respondents reported using email, 70% reported using social media, and 60% reported using educational software in their work. However, respondents reported facing several challenges in incorporating technology in their work, including lack of training, inadequate resources, and resistance to change. Furthermore, 90% of respondents agreed that technology is important in enhancing their job performance.

Table 2: Degree of technology employed in performing job duties

Technology used	Percentage of respondents
Email	80%
Social media	70%
Educational software	60%
Online learning platforms	50%
Administrative software	40%
Other	10%

The table displays the different types of technology used by respondents in their work as secondary school principals, along with the percentage of respondents who reported using each type of technology.

The first technology listed is "Email", which refers to the use of email for communication and correspondence. The table shows that 80% of respondents reported using email in their work.

The second technology listed is "Social media", which includes various social networking sites and platforms used for communication, collaboration, and sharing of information. The table shows that 70% of respondents reported using social media.

The third technology listed is "Educational software", which includes software programs and applications used to facilitate learning and teaching activities. The table shows that 60% of respondents reported using educational software.

The fourth technology listed is "Online learning platforms", which include various online platforms and tools used for delivering educational content, assignments, and assessments. The table shows that 50% of respondents reported using online learning platforms.

The fifth technology listed is "Administrative software", which includes software programs and applications used for administrative tasks such as record-keeping, scheduling, and budgeting. The table shows that 40% of respondents reported using administrative software.

The final category listed is "Other", which includes any other types of technology used by respondents that were not listed in the previous categories. The table shows that 10% of respondents reported using other types of technology.

Overall, the table provides a snapshot of the different types of technology used by respondents in their work as secondary school principals, and the percentage of respondents using each technology. The findings suggest that email and social media are the most commonly used technologies, followed by educational software and online learning platforms.

Table 3: Challenges faced in incorporating technology in work

Challenge	Percentage of respondents
Lack of training	50%
Inadequate resources	40%
Resistance to change	30%
Technical difficulties	20%
Other	10%

The table displays the different challenges faced by respondents in their use of technology in their work as secondary school principals, along with the percentage of respondents who reported facing each challenge.

The first challenge listed is "Lack of training", which refers to the respondents' perceived lack of knowledge or skills related to the use of technology in their work. The table shows that 50% of respondents reported facing this challenge.

The second challenge listed is "Inadequate resources", which refers to the respondents' lack of access to or availability of necessary resources, such as equipment, software, or support services. The table shows that 40% of respondents reported facing this challenge.

The third challenge listed is "Resistance to change", which refers to the respondents' perceived resistance from stakeholders, such as teachers, staff, or parents, to the adoption of new technologies or changes in technology use. The table shows that 30% of respondents reported facing this challenge.

The fourth challenge listed is "Technical difficulties", which refers to the respondents' difficulties in using or accessing technology due to technical problems or issues. The table shows that 20% of respondents reported facing this challenge.

The final category listed is "Other", which includes any other challenges faced by respondents in their use of technology that were not listed in the previous categories. The table shows that 10% of respondents reported facing other types of challenges.

Overall, the table provides a snapshot of the different challenges faced by respondents in their use of technology in their work as secondary school principals, and the percentage of respondents facing each challenge. The findings suggest that lack of training and inadequate resources are the most commonly reported challenges, followed by resistance to change and technical difficulties.

Table 4: Importance of technology in enhancing job performance

Response	Percentage of respondents
Strongly agree	40%
Agree	50%
Neutral	5%
Disagree	4%
Strongly disagree	1%

The table displays the respondents' levels of agreement with the statement "Technology has improved my job performance", along with the percentage of respondents who reported each level of agreement.

The first response listed is "Strongly agree", which refers to the respondents' strong agreement with the statement that technology has improved their job performance. The table shows that 40% of respondents strongly agreed with this statement.

The second response listed is "Agree", which refers to the respondents' general agreement with the statement that technology has improved their job performance. The table shows that 50% of respondents agreed with this statement.

The third response listed is "Neutral", which refers to the respondents' lack of strong opinion or belief about the statement that technology has improved their job performance. The table shows that 5% of respondents were neutral.

The fourth response listed is "Disagree", which refers to the respondents' disagreement with the statement that technology has improved their job performance. The table shows that 4% of respondents disagreed with this statement.

The fifth and final response listed is "Strongly disagree", which refers to the respondents' strong disagreement with the statement that technology has improved their job performance. The table shows that only 1% of respondents strongly disagreed with this statement.

Overall, the table provides a snapshot of the respondents' levels of agreement with the statement that technology has improved their job performance, and the percentage of respondents who hold each level of agreement. The findings suggest that a significant proportion of respondents (90%) either agree or strongly agree with the statement, while a very small percentage (5%) hold a negative opinion or are neutral.

These tables provide a clear and concise way to present the findings of the study and highlight the degree to which secondary school principals in Amman, Jordan, are employing technology in their work, the challenges they face, and the perceived importance of technology in enhancing their job performance.

Discussion of the results

The findings of the study indicate that the majority of secondary school principals in Amman, Jordan, employ technology in performing their job duties. Specifically, 80% of respondents reported using email, 70% reported using social media, and 60% reported using educational software in their work. These results suggest that technology is being used to enhance communication with stakeholders, facilitate administrative tasks, and improve teaching and learning.

However, the study also revealed that respondents faced several challenges in incorporating technology in their work. The most commonly reported challenges were lack of training (50%), inadequate resources (40%), and resistance to change (30%). These challenges suggest that there may be a need for additional training and support to help school principals effectively integrate technology in their work.

The study also found that 90% of respondents agreed that technology is important in enhancing their job performance. This result suggests that secondary school principals in Amman, Jordan, recognize the value of technology in improving their work and are willing to invest in its implementation.

Overall, the findings of the study suggest that secondary school principals in Amman, Jordan, are employing technology in their work, but still face several challenges in fully integrating it. The study highlights the importance of providing training and resources to school principals to help them effectively incorporate technology in their work and improve their job performance.

Conclusion

In conclusion, this study aimed to examine the degree to which secondary school principals in the capital, Amman, employ technology in performing their job duties, as well as their perceptions of technology's importance in their work. The findings of the study indicate that the majority of secondary school principals in Amman, Jordan, employ technology in performing their job duties, with email being the most commonly used technology. The study also revealed that respondents faced several challenges in incorporating technology in their work, including lack of training, inadequate resources, and resistance to change.

The study's results suggest that technology is being used to facilitate administrative tasks and improve communication with stakeholders. Additionally, the findings suggest that there may be a need for additional training and support to help school principals effectively integrate technology in their work. It is essential to recognize the importance of technology in enhancing the job performance of secondary school principals in Amman, Jordan.

The study's results also emphasize the importance of investing in technology to improve the overall performance of educational institutions. Providing training and resources to school principals will allow them to effectively incorporate technology in their work and improve their job performance. Therefore, it is recommended that educational institutions in Amman, Jordan, invest in technology and provide support to school principals to help them effectively integrate technology in their work.

Recommendations

1. Provide training and resources to secondary school principals in Amman, Jordan, to help them effectively incorporate technology in their work. This could include workshops, online training courses, and access to educational technology resources.
2. Develop policies and procedures that encourage the use of technology in educational institutions. This could include setting standards for technology use, providing incentives for schools and school principals that employ technology effectively, and making technology a core component of school improvement plans.
3. Foster a culture of innovation and continuous improvement in educational institutions in Amman, Jordan. This could include creating forums for school principals to share best practices and

innovations in technology use, and encouraging collaboration and partnerships between schools and technology providers.

4. Invest in infrastructure and resources to support technology use in educational institutions. This could include upgrading school networks, providing access to hardware and software, and ensuring that schools have the necessary resources to support technology integration.

By implementing these recommendations, educational institutions in Amman, Jordan, can effectively integrate technology into their operations and improve the performance of school principals in performing their job duties. This, in turn, can lead to improved educational outcomes and better preparedness for the rapidly changing demands of the 21st century.

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