

## SKILLS AND KNOWLEDGE IMPACT TEACHERS TECHNOLOGY INTEGRATION IN SOCIAL STUDIES TEACHING IN JORDANIAN SCHOOL

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### Abstract

This qualitative research study aimed to examine the knowledge and knowledge skills impacting technology integration in social studies teaching in a Jordanian school. The case study method was chosen because the research questions sought to identify specific factors (skills and knowledge) influencing technology integration in a classroom. In Jordan, little qualitative empirical research has investigated the level of skills and knowledge of technology that has been carried out for educational purposes. Therefore, this paper intends to identify the importance of teachers' knowledge and skills in technology integration. These data were analyzed using a thematic analysis approach, semi-structured interview interviews, and observations were used as instruments to collect data. Four social studies teachers participated in this study. Findings showed that most of the teachers have positive knowledge and skills towards technology integration in their teaching, but that training courses should be developed to increase their proficiency.

**Keywords:** Impact. Teacher skills. Knowledge. Technology. Integration. Social studies

### Introduction

Research has shown that many factors influence the technology integration of teachers such as their previous experiences, adequate knowledge and skills, and access to necessary resources (Barbaran, 2014; Strange, 2018; Skaalvik & Skaalvik, 2010; Smarkola, 2007; Vatanartiran & Karadeniz, 2015; smadi, 2022; Smadi & Raman, 2020). All these factors are essential for encouraging teachers to effective technology into their area of speciality within their working places (Hu & Garimella, 2014). In doing so, teachers face certain barriers. As several have noted that a lack of confidence, attitudes and beliefs, a lack of skills and knowledge are among those factors inhibiting this integration. (AlMulhim, 2014); Alhashem & Al-Jafar, 2015; Mohamadkhani, Farokhi & Farokhi, 2013).

Indeed, Ames (2017) indicated that additional research is still needed to identify factors that help or hinder technology integration in classrooms to seek remediation. While numerous studies have been conducted about this issue in developed countries, the absence of research in developing countries is conspicuous (Bandyopadhyay, 2013). This absence constitutes a critical knowledge gap that warrants a greater understanding of what affects the integration of technology in the classroom in developing countries. For example, Jordan.

Manuscrito recibido: 04/08/2024

Manuscrito aceptado: 15/08/2024

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In recent years, Jordan has paid increased attention to integrating technology into its K-12 curriculum, which has been made clear through the 2018-2022 Ministry of Education strategic plan (Jordanian Ministry of Education (JMoE), 2019). Many efforts have been exerted to introduce technology into education in Jordan, and the Jordanian Ministry of Education has created several specialized projects to increase the efficiency of technology. Many developing countries like Jordan have invested a large amount of money in integrating technology in the field of education by providing a teacher with good opportunities to develop their skills and knowledge related to the technology integration (Al-Zaidiyeen, Mei & Fook, 2010).

In this context, research is required to determine where this integration stands and what policymakers and interested stakeholders can do to speed the process. Therefore, this current study is aimed at exploring the factors influencing technology integration in Jordanian classrooms more in-depth.

The current study differs from others in two ways. First, in Jordan, most research studies conducted so far have focused on quantitative data collection methodology, such as surveys (Al-Ghzo, 2018; Al-Zaidiyeen, 2015 Albatineh, 2014). Thus, this research fills the methodological gap.

The purpose of this qualitative research study was to examine the influence of knowledge and skills on the level of technology integration by teachers in a Jordanian-school. The case study method was chosen because the research questions sought to identify specific knowledge and skills influencing technology integration in classrooms. This case study used four social science teachers in the seven grade, working at a four schools in north of, Jordan. Thus, as a result, this study represented a new initiative in Jordan because no previous attempts have been made to explore factors that influence the integration of technology knowledge and skills in teaching social studies by using a qualitative method.

### Two research questions guided this study, which were:

Q1: What is the level of knowledge and skills among social studies teachers in Jordanian schools?

Q2: How do the knowledge and skills of the teachers influence their integration of technology in the classroom?

### Literature Review

The successful adoption of technology in education depends mostly on the

skills and knowledge of teachers. Adopting technology requires knowledge of a subject area, an understanding of how students learn and a level of technical expertise (Ahmad, 2016; Smadi, 2022). According to Buenger (2019) and Smadi and Raman (2020) teachers require support for the development of their skills and knowledge in their schools.

The integration of technology in the classroom is vital for supporting the development of cognitive skills and improving the teaching and learning process (Blackwell, 2014). The integration of technology is increased when teachers are confident in their digital skills and positive about instructional technology as well as its impact on teaching (Wastiau et al., 2013). Technology tools in and out of the classroom allow students and teachers to access information at record speed and help students to develop their overall technological skills and knowledge (Barbaran, 2014), which is essential in today's global economy.

Nowadays, all teachers need to become skilled users of technology and have access to technological resources to draw conclusions and apply knowledge in novel situations. This process helps in creating new knowledge (Mareco, 2017). In addition, students must be exposed to knowledge about technology in the classroom to meet 21st-century learning goals (Strange, 2018; Smadi, 2022).

According to Winterhalder (2017), teachers must obtain the knowledge, skills to integrate technology into their teaching. Sometimes teachers have these skills. Sometimes they do not. For example, Ahmad (2014), in a study of Malaysian science teachers, found that the self-handicapping thoughts of teachers, school support, attitude toward ICT use, and negative beliefs about ICT use were barriers to uses. Among these, self-handicapping thoughts emerged as the largest inhibitor, explaining about 38.2% of the lack of ICT utilization in the science classroom. Other studies have found that major factors affecting technology adoption in teaching were the lack of knowledge and skills of teachers (Kerckaert et al. 2015; Orlando, 2014; Harendita, 2013; Salehi & Salehi, 2012). Other studies have reported challenges that teachers experience in the integration of technology in their classrooms including a lack of time and lack of knowledge about ways to integrate technology in classrooms (Ageyi & Voogt 2011; Prestridge, 2012; Smadi & Raman (2020).

Hao and Lee (2017) conducted a quantitative study at a north Taiwan University in which teachers reported using technology for personal use but had little knowledge of the technology used within the context of teaching and learning. To reduce this barrier, they suggested that the educators must have models of technology integration in their education curriculum, not just in single technology skill-related courses, allowing opportunities to build technological knowledge.

In line with the rapid advancement of technology around the world, Jordan has encouraged social studies teachers to integrate technology into their teaching and learning systems. (JMoE, 2015). The Jordanian Ministry of Education is committed to encouraging the integration of technology and has made this integration a high priority in schools. In the process, the development of technology has imposed significant pressures on Jordanian teachers to adopt and adapt traditional and modern teaching approaches with newly emerging technology tools (Al-Bataineh & Anderson, 2015; Ageel & Woollard, 2012).

To date, current research on the integration of technology in Jordan has focused on quantitative methods (Al-Bataineh, 2015; Al-Zaidiyeen, 2015; Abuhmaid, 2008; Al-Ruz & Khasawneh, 2011). In this regard, Al-Bataineh (2014) recommended that future research using qualitative methods like interviews and observations should be conducted to gain more in-depth information that could enrich the field and create a better understanding of technology integration in Jordan.

The current study addresses this call, using a qualitative research design (interview and observation) to fill this research gap. As the literature review revealed, minimal research has been conducted on technology integration in Jordan. Thus, a need exists to conduct more research on knowledge and skills influencing the technology integration in Jordanian schools, particularly in "soft sciences" like social studies.

**Method**

The qualitative research design for this study was a case study, which utilised four social studies teachers from Jordanian schools. Data collection for this study involved face-to-face interviews and observations.

This study followed a set of procedures or processes, which was a follows.

A purposive sampling technique was used as recommended by other scholars for exploratory studies (i.e., Creswell, 2014, 2012, 2009; Sekaran, 2013; Patton, 2002; Smadi, Mohammad & Ab Rahman (2020)). In this instance, purposeful sampling is employed to secure participants who are deliberately identified to access valuable data that could not be obtained from other sources. Sekaran (2013) stated that qualitative studies need only a small number of individuals or organisations sample size. This study used purposeful sampling to ensure that the research can attain an in-depth understanding of knowledge and skills influencing technology integration in social studies teaching in Jordanian school.

The sample was limited to four schools in north, Jordan. One teacher from each school was used a formal letter sent to the school's managers requesting permission to conduct a study in their school.

In this study, the interview was the main study method, which supplemented with classrooms observation. This research was based on a semi-structured interview with open-ended questions, focusing on knowledge and skills influencing technology integration in social studies teaching. The interviews lasted from 45 to 60 minutes with each teacher. In addition, one observation session that lasted from 35 to 45 minutes was conducted with each teacher.

This study used thematic analyses techniques to analyse the collected data. The data collection process used coding in which the data analysis was inductively built from particulars to general themes (Creswell, 2007). Thematic analysis permits the provision of interpretations to data and helps in establishing a clear and systematic method of data analyses without threatening the depth and quality of that analysis.

**Findings**

**Research Questions**

The purpose of this qualitative research study was to explore knowledge and skills influencing technology integration in social studies teaching in Jordanian school. The case study method was chosen because the research questions sought to identify specific knowledge and skills influencing technology integration in classrooms. Two research questions guided the study, which were the following:

Q1: What is the level of knowledge and skills concerning technology among social studies teachers in Jordanian schools?

Q2: How do the knowledge and skills of social studies teachers influence the integration of technology integration in their teaching?

**Characteristics of the Participants**

The characteristics of the participants of the study were the following. Table 1.

**Interviews**

**The responses teachers were as follows:**

Teacher (R) said "that knowledge and skills were the main factors that enabled

**Table 1.** Characteristics of the Participants.

Pseudonym	School	Gender	Age	Years of Experience
F	1	F	35	10
R	2	F	41	12
M	3	M	30	5
K	4	M	37	7

teachers to integrate technology in their teaching and said that his knowledge and skills enhanced his ability to integrate technology into teaching". This response agree with the findings of Black well (2014) and Ahmed (2014) who reported that the technology integration in teaching supports teacher skills and knowledge and improves their levels In the same context, Wastiau et al. (2013) showed that basic skills of teachers are essential for technology integration in classrooms. Also, Smadi and Raman (2020). Noted that technological tools in the classroom were required to enhance the efficiency and skills of teachers.

According to Teacher (F) said, "I integrate technology in my teaching in constantly because I have a lot of technological knowledge." In same time, teacher (K) said "that he had integrated technology in his teaching, and the results had been dramatically effective. In Addition, he stressed that technological tools were essential for the development of the actual level of integration of technology.

The comments of teachers aligned with Barbaran (2014), who said that the technological level of teachers increased when the technological tools were available. In addition, Smadi, Mohammad and Ab Rahman (2020). Noted that teachers need to boost knowledge and skills in technology integration. In the same context, Shin (2015) argued that teachers need knowledge to become able to integrate technology in their teaching. Indeed, Strange, (2018) said that 21st-century teachers should have the technological knowledge and skills necessary to integrate technology in their teaching (Strange, 2018).

Finally, interviews with participates in this study showed that all teachers have positive technological knowledge and skills toward use of technology in their teaching.

**Classroom Observations**

The classroom observations showed that teachers encouraged their students. All teachers in this study motivated their students to collaborate to use of all technological means in the classroom. Furthermore, the observations showed an interaction between the teachers and students during the processing of some activities through collective action. They also displayed positive attitudes and beliefs toward technology integration in their teaching.

Both R and F motivated students to work individually and in groups. The teacher motivated students to use technology and gave them real opportunities to participate actively in the process of effective technology integration

All teachers were effectively in use many technological means in classrooms. Also, they were helps their teachers technology integration in their learning. For example, I observed that teachers M and K to motivate their students to collaborate within the classroom.

Finally, the classroom observation reflected the high levels of most teachers in technology integration in their teaching. In addition, the classroom observations examined the context of interactive classrooms between the teachers and students together and found increased use of technology in the classroom. Additionally, the classroom observations helped in understanding the actual levels of teachers in technological integration in teaching.

**Discussion**

Both the interviews and the observations demonstrated that many of the teachers had technology skill and knowledge and were effective in integrating technology into their teaching because of this knowledge and technological skills. The results of this study also revealed that skills and knowledge directly influence technological integration in teaching.

In addition, the knowledge and technological skills influence the level of technological integration by a teacher in the classroom. Thus, all teachers must have the technological knowledge and skills necessary for the successful integration of technology into classrooms.

Nonetheless, despite these findings, teacher training must be upgraded in the use of technology in teaching to ensure good results. Thus, the Ministry of Education should provide adequate programs to meet the needs of teachers, from knowledge and skills that will help them to integrate technology in their teaching.

Lastly, some factors directly influenced technology integration in the classrooms. On the one hand, these factors included the availability of technological resources. On the other hand, some factors were related to the

teacher him/herself, such as knowledge and skills teachers.

### Limitations Of The Study

A primary limitation of this study was the small sample. Therefore, it might have limitations for this study in terms of generalizability. However, the issue of difficulty in generalizing findings from a small sample study comes from conceiving generalizability in the same way as do investigators using experimental or correlational design (Merriam, 1998).

### Conclusion And Recommendations

#### Summary

The aim of this paper to explore teacher knowledge and skills influencing technology integration in Social Studies teaching in this study, the participants were four teachers from four Jordanian schools. The findings of this paper showed that teachers had knowledge and skills related to the integration of technology in their teaching and motivated learners to be engaged in classroom activities.

There is a lack of qualitative studies about knowledge and skills influencing technology integration in Social Studies teaching in Jordanian schools. This study could provide useful information for teachers on how knowledge and skills influence technology integration in the classroom. Finally, this study will provide guidelines for policymakers in the Jordanian Ministry of Education.

#### Recommendations

1. All teachers must have technological knowledge and skills to be able to integrate technology in their teaching.
2. The Ministry of Education should intensify efforts to develop teachers' technological levels, through training teachers on the employment of technology both in pre-service and in-service settings.
3. The Ministry of Education should develop and provide adequate programs that address the needs of teachers, including knowledge and skill development that will help them integrate technology in their teaching.
4. Finally, policymakers in the Ministry and the stakeholders should focus attention on integrating technology in Jordanian classrooms.

#### Recommendations For Future Study

This qualitative study included four social studies teachers in Jordan. This number is small compared to the quantitative studies, which makes generalizing the results of the study difficult. Therefore, an urgent need exists for more qualitative research. Nonetheless, more qualitative research should be conducted to understand technology integration in the context of Jordanian classrooms across a variety of subject matters.

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