

Motives for Integrating Instructional Technology into Teaching Practices: A Qualitative Study of Teachers' and Educational Supervisors' Views

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Abstract

The study aimed to investigate teachers' drives and motives for integrating instructional technology into their teaching practices. It adopted a qualitative research approach, where the phenomenological approach was used to identify teachers' motives for integrating instructional technology into their teaching practices, and to identify the effective integration of instructional technology in education. Semi-structured interviews were conducted with (8) general education teachers who have distinctive experiences in the use of instructional technology in education, in addition to interviewing (4) educational supervisors to explore their views in the effective use of instructional technology in education. MAXQDA software was used to analyze the outcomes of the interviews. The results of the study revealed that the teachers' motives for instructional technology integration into their teaching practices can be categorized under four main axes: technology as a tool for presenting educational content, technology as a tool for motivating students, technology as a tool for conceptualizing abstract concepts, and finally technology as a response to external requirements and expectations. The opinions of the educational supervisors agreed with what the teachers indicated, as the former explained that the teachers' drives to integrate instructional technology were to use it as a tool for presenting educational content, motivating students, and communicating with them. The results also showed that effective use of instructional technology requires using it in constructivist learning tasks and activities that provide authentic and deep learning opportunities in which learners play active roles, investigation, problem solving, and collaboration .

Keywords: Teachers' Motives, Instructional Technology, Technology Integration, Qualitative Study.

1. Introduction

Technology is nowadays an essential part of our daily lives and a key element of the efforts and practices to improve teaching and learning outcomes (Voogt, Tilya, & van den Akker, 2009; Kim et al., 2013). In

recent years, technology is manifestly present in modern educational reforms and developments, and in teaching practices in most countries and educational systems. It is expected that technology will contribute to enabling deep learning, which is crucial for the success of learners in the present era (Fullan & Langworthy, 2014). Baydas and Goktas also assert that technology, which is characterized by rapid development and change, has greatly affected many fields, including education and has become the focus of attention of researchers in the field of education because it enhances the effectiveness of education and makes it enjoyable (Baydas & Goktas, 2016).

However, the effective use of technology requires effecting profound changes in traditional teaching and learning activities (Genlott, Grönlund & Viberg, 2019) and transcending the limited view of technology as an aid to traditional teaching strategies and practices, towards promoting innovative teaching and learning based on learner activity (Agilii Genlott, Grönlund, & Viberg, 2019; Bocconi, Campellis, & Boni, 2014; Lu, 2003). In the same context, McKnight et al., (2016) assert that the effective use and integration of technology in classrooms are not determined by the technology itself, but rather by how these technologies enable active teaching and learning processes (McKnight et al., 2016).

Learning can be said to be effective when students learn in environments that resemble real-life situations, or when they learn through practical application and experience, which makes them more absorb abstract and complex concepts. The application and implementation of activities that lead to practical and experimental learning in teaching practices and learning processes related to real-life situations are effectively enhanced with the support of educational technologies, highlighting the role of technologies in teaching processes (Erişti et al., 2012).

Teachers are the cornerstone of the success or failure of the processes of integrating instructional technology into teaching practices, as teachers play a crucial role in determining whether and how technology will be used in the classroom (Ertmer & Ottenbreit-Leftwich, 2010). They are expected to integrate technology into their teaching practices to facilitate and enable meaningful and engaging learning experiences for students (Abedi, Prestridge, & Hodge, 2023). Even if some teachers use technology without linking it to content or teaching methods, studying the motivations for using technology itself is an important starting point (Taopan et al., 2020).

The Technological Pedagogical Content Knowledge (TPACK) framework can be used as a theoretical framework that guide the

integration of instructional technology into teaching practices. TPACK is based on demonstrating the integration of three basic aspects of knowledge: technology, teaching methods, and educational content. It is a model that supports teachers in integrating technology into their teaching practices. According to Mishra & Koehler (2006), effective technology integration is based on knowledge of teaching methods, of educational content, and of technology. The model is based on demonstrating how to choose the appropriate technology for educational content and the teaching method suitable for a specific educational context. The model emphasizes the knowledge resulting from the intersection of three basic knowledge areas: pedagogical content knowledge (PCK), technological content knowledge (TCK), and technological pedagogical knowledge (TPK) (Abubakir & Alshaboul, 2023). There is no doubt that the principles of the TPACK framework produce theoretical rules that can be relied upon to frame teachers' motivations for integrating technology into teaching practices. In TPACK, technology is not used as an educational support tool, but rather as a system integrated with knowledge and content to enrich students' experiences and support their learning (Shabira & Yanti, 2024).

Constructivism Theory is also one of the main theories that can direct and guide the effective integration and use of instructional technology into teaching practices. Learning according to the Constructivism theory is the process that supports knowledge construction. Constructivism theory argues that learning occurs when learners constructs both mechanisms for learning and their own unique version of the knowledge. It emphasizes that knowledge must be constructed by the learner. The teacher can only assist the learner to do the construction. "The construction of knowledge is a dynamic process that requires the active engagement of the learners who will be responsible for one's learning while the teacher only creates an effective learning environment. As students and teachers make use of technology in the learning process, these skills become necessary and the technology becomes a learning tool. Technology can serve as coaches by locating the problem and allowing for as much rehearsal, practice, and help as necessary to accomplish the task" (Makewa, 2019, P. 268).

1.1 Problems and Questions of the Study

Studies such as Ertmer and Ottenbreit-Leftwich (2010); Abedi et al., (2023); McKnight et al., (2016) indicate that teachers' goal in integrating technology into their teaching is expected to go beyond technology itself, and that their goal should be to enhance and facilitate constructivist learning practices where students can play active learning roles based on their being learners to support and enhance their learning

and thinking and develop their skills, as they are given the opportunity to choose and control their learning, and to play active and positive roles in real and realistic learning practices, activities, and tasks using technology to develop cooperative learning skills, creativity, critical thinking, problem solving, and higher-order cognitive skills.

In line with the shift to learner-centered learning practices and strategies that prioritize deep learning objectives, teachers are expected to act as facilitators, enabling students to practice self-learning and conduct their own scientific experiments using technological innovations. This approach enhances students' construction of their knowledge, along with their collaborative, creative, and critical thinking skills, higher-order cognitive skills, and problem-solving abilities (Abedi et al., 2023).

However, this view of the hoped technology integration is not consistent with the results of some previous studies (Bertram, 2013; Fullan & Langworthy, 2014; Prestridge, 2017), which found out that most teachers' practices related to technology integration and use often revolve around replicating their traditional roles and teaching strategies, rather than making a significant change in students' learning and thinking. The effective use of technology may be a difficult task for many teachers, as it challenges their deeply rooted beliefs and philosophies and their traditional teaching and learning practices (Genlott, Grönlund & Viberg, 2019).

One of the important factors that is often underestimated and refrained from studying and researching, despite its importance in understanding teachers' integration of technology, is the issue of the motivations that drive teachers to use technology, in addition to the role their educational and teaching thought and philosophy play in this usage. These roles are highly influential in guiding teachers' decisions regarding the integration of technology into their daily teaching practices (Niess & Gillow-Wiles, 2017).

Although there are many models for teachers' integration of technology into education, reaching a complete vision through qualitative studies that determine teachers' and educational supervisors' visions of the motivations for integration can represent an important theoretical basis for starting to improve the practices of employing and integrating technology into education.

Based on the above, the current research problem is based on exploring in-depth the motivations of teachers' decisions to integrate technology into their teaching practices.

Thus, the research problem can be formulated in the following two main questions:

1. What are teachers' motives for integrating instructional technology into their teaching practices?
2. What is the effective use and integration of instructional technology into teaching practices?

1.2 Objective of the Study

The current study aims to achieve the following:

- An in-depth understanding of teachers' drives and motives that explain their decisions to integrate instructional technology into their teaching practices.
- Providing a vision for the effective and successful use and integration of instructional technologies into teaching practices.

1.3 Importance of the Study

1. The researcher hopes that this study may be a step towards the effective use and integration of instructional technology in the educational process, linking its use to authentic theoretical and educational principles.
2. The researcher hopes that this study may contribute to enriching the library with studies that aim to research and frame the effective use and integration of instructional technology in the educational process.
3. The researcher hopes that the current study may contribute to supporting decision-makers in developing policies or proposing frameworks and handbooks for the effective integration and use of instructional technology.

1.4 Limitations of the Study

1. **Human Limitations:** The current research was limited to a group of (8) male and female teachers in different stages of education, who have experience in using technology in their teaching practices. In addition to (4) educational supervisors.
2. **Temporal Limits:** The first semester of the academic year 2024-2025.

2. Method

2.1 Study Methodology

Based on the research problem and questions, the current study used the phenomenological approach, which aims to understand the meaning of the phenomenon through the experiences of individuals, and also allows researchers to understand how individuals construct the reality in which they live (Creswell & Poth, 2016). This approach was adopted to deeply understand teachers' motivations for making decisions related to integrating technology into their teaching practices.

2.2 Procedures

The research procedures are as follows:

- The education departments in Jeddah Governorate were contacted to nominate teachers who have experience and expertise in using educational technologies in their teaching practices. They were also asked to nominate educational supervisors with experience in educational supervision related to educational technologies.
- A proposed list of names of (70) teachers and (12) educational supervisors was provided.
- Eight (8) teachers were selected from the proposed names according to the diversity of their specializations and their desire to participate. Moreover, four (4) educational supervisors were also selected.
- The interviews were based on semi-structured interview questions in Arabic, and the average duration of the interviews with teachers was (40) minutes.
- All interviews were recorded and transcribed into text copies and then re-presented to the participants to ensure their accuracy and the correctness of their transcription.

2.3 Data Collection

Data were collected using one of the most prominent data collection tools in qualitative research, namely semi-structured interviews, to answer the research question: "What are teachers' motives to integrate instructional technology into their teaching practices?" The semi-structured interview was used as a tool to collect data. After reviewing the literature, the following semi-structured interview guiding questions were formulated for the participating teachers:

- Describe your experience in using instructional technology in teaching?
- Why do you use technology in your teaching?
- How do you describe some of the distinctive experiences of your fellow teachers using instructional technology in their teaching?
- Describe the administrative and organizational context that supports the use of technology in education?
- How do you see your experience in using instructional technology each semester?
- How do you make decisions related to use of instructional technology in your teaching practices? give examples please?
- How do you evaluate the experience of your fellow teachers in using instructional technology?
- Tell me about inspiring stories that motivated you and your fellow teachers to use instructional technology?

- Do you rely on educational philosophies/ theories in your use of instructional technology in teaching? If yes can you elaborate on that please?
- Tell me the story of one of the distinguished teachers (award-winning/ you saw him in a movie/ you read about his/her inspiring story) whose view you adopt in your use of instructional technology?
- Tell me about the most important administrative decision that prompted you to use instructional technology?
- Tell me please about any success story of one of your students through which you felt that you were on the right path in your use of instructional technology.

As for the questions of the semi-structured interviews conducted with educational supervisors, they are as follows:

- How do you see teachers' use of instructional technology?
- What are teachers' motivations for integrating instructional technology into their teaching practices?
- In your opinion, what is the effective and successful use and integration of instructional technology into education?
- Tell me about the experience of one of the teachers you supervise, whose use of instructional technology you regard as effective and supportive of student-based learning practices.

2.4 Participants in the Study

The sample of participating teachers included (8) teachers who have experiences in using instructional technology in their teaching, in addition to (4) educational supervisors, as saturation of the responses of the participants in qualitative research can be achieved through eight interviews with teachers and four interviews with educational supervisors, which is a sufficient number to reach a complete description of the aspects of the concepts included in the research (Guest, Bunce, & Johnson, 2006). According to Hennink, Kaiser and Marconi (2017) saturation is achieved when no additional insights or themes emerge from the data collection, and all conceptual categories have been explored, identified, and completed.

The purposive sampling was adopted in selecting the participants based on a set of criteria that serve the study's objective, including that the teacher has teaching experience of no less than five years and has experience in using technology in his/her teaching, and that all stages of general education, primary, intermediate and secondary, are represented. Educational supervisors were also selected based on their long experience in educational supervision in the field of educational technologies, and their knowledge of educational research practices in the field of educational technologies and teaching methods and approaches, based on

their CVs. Research literature indicates that the purposive sampling is the common method for selecting participants in qualitative research; It is based on the researcher selecting the participants in his/her study in a deliberate manner based on his/her assessment and perception that the participants will contribute to answering the research questions and achieving its objectives.

Table (1) Demographic Information of the Participants

Participants Sample	gender	Years of Experience	Specialization	Level
T-1	Male	10	Science	Secondary
T-2	Male	13	English Language	Primary
T-3	Male	15	Social Studies	Primary
T-4	Male	8	Science	Intermediate
T-5	Female	10	IT & Computer Science	Secondary
T-6	Female	12	Social Studies	Primary
T-7	Female	6	Science	Intermediate
T-8	Female	11	English Language	Primary
S-1	Male	17	IT & Computer Science	Supervising all Levels
S-2	Male	21	Science	Supervising all Levels
S-3	Female	19	Social Studies	Supervising all Levels
S-4	Female	16	English Language	Supervising all Levels

2.5 Ethical Considerations

The current study complied with the ethics of scientific research included in the Scientific Research Ethics Handbook at King Abdulaziz University. The teachers and educational supervisors participating in the study signed a document that included the rights of the participants, which included voluntarily participating, withdrawing at any time during the research, maintaining the confidentiality of participants' data and of the information they provide in the interviews, and obtaining permissions to publish qualitative data for the purposes of the current study.

2.6 Data Analysis

After obtaining the participants' responses, which were transcribed verbatim, the texts were coded and grouped, then subsumed into sub-themes, and finally classified according to the main axes of the themes related to the teachers' motivations for making their decisions to integrate technology into their teaching practices. MAXQDA was used to conduct all analyses, as it allows data to be coded and grouped, and sub-themes to be created through the response files of each participant in the experiment. The analysis of the participants' responses revealed (4) main themes that represent teachers' drives for making decisions related to

integrating technology into their teaching practices, as follows: technology as a tool for presenting educational content, technology as a tool for motivating students, technology as a tool for understanding abstract concepts, and finally, responding to external requirements and expectations.

3. Results and Discussion

In this section, the study results will be presented and discussed in (4) main axes that constitute, in their entirety, teachers' motivations for making decisions related to integrating technology into their teaching practices, as follows:

3.1 Technology as a tool for presenting educational content

Using technology as a tool for presenting educational content to learners in an attractive way is one of the main and common uses of technology in education. Studies indicate that many teachers use technology in a simple way in the context of traditional teaching practices that do not go beyond using technology as an attractive tool for presentation (Fullan & Langworthy, 2014; Prestridge, 2017).

In the context of the current study, the analysis of participants' responses showed that teachers tend to agree that their motivation for integrating technology into their teaching practices is to present educational content to learners in attractive ways. This is because technical tools help in presenting educational content to students in an organized and attractive manner.

For example, participant (T-2) revealed that the main motive for his use of technology is to present lessons to learners, saying:

"My experience with technology in teaching began with basic tools, such as PowerPoint, mainly to present lessons through PowerPoint presentations... because this helped me deliver the lesson to students easily and simply, and also contributed to students' knowledge and understanding of the lessons." (T-2)

In the same line of thought, another participant (T-5) explained that her use of technology was to present educational content because technology contributes to saving time and effort, saying:

"In fact, I started using technology as a means of presenting lessons using a projector... I present the lesson to my students in an organized and well-designed manner... What motivated us to use technology is that it saved our time and effort and helped us present organized and sequential content." (T-5)

Another participant (T-6) supports this view, saying:

"Technology helps me convey information to students more clearly, by dividing the lesson and presenting it in parts... Also, it saves

time because it enables me to prepare the lesson in advance and then display it on the board using a projector." (T-6).

3.2 Technology as a tool for motivating students

Using technology as a tool for motivating students is a prevailing trend among many teachers, stemming from the capacity and capabilities of many technologies and the possibility of presenting educational content and delivering it in various attractive and interactive ways. For example, using technologies such as interactive multimedia, audience response technologies, and gamification helps keep students engaged in learning tasks, and motivates them by making lessons more interactive and effective (Dash & Kuddus, 2019; Tomczyk, 2022).

Participants' responses indicated that one of the most important drives for their decisions to integrate technology into their teaching practices is their need to invest the capabilities and capacity of some educational technologies in motivating students and overcoming boredom.

This is confirmed by what participant (T-3) indicated when he said: *"I use technology to motivate my students. In my personal view, a teacher who uses technology is up-to-date and progressive, and students have a positive view of him and wait for him enthusiastically. In fact, my students have begun to ask me when I enter the classroom, "Where is the projector bag, teacher?" because technology attracts and motivates them. This does not happen with a teacher who does not use technology and is not familiar with it. We, Dr. Ali, were in a school that lacked much technical equipment, and we had to buy devices personally. Each teacher bought a laptop and a projector of his own." (T-3).*

Moreover, participant (T-7) says:

"In fact, I made the decision to use technology because it is one of the things that saved me a lot of trouble when preparing and organizing lessons. It saves me time and effort, and it has also made the teaching process more attractive and enjoyable for learners. I also made my decision to use it because it helps me deal with some students who do not respond to, or interact with, some traditional teaching methods." (T-7).

Participant (T-4) confirms this idea, saying:

"The first motive for using technology in my teaching is to benefit students, arouse their interest, motivate them, attract them through technology, and get out of the prevailing pattern such as lectures. Second, technology enables me to facilitate the teaching task and achieve the desired goals, as it helps to achieve the goals in different ways and present the content in stimulating and attractive

formats and images that help to overcome boredom and distraction that we suffer from a lot in our classes." (T-4).

Participant (T-2) also indicated that the motive for his use of technology is to motivate students and attract their attention, saying:

"The decision to use technology in my teaching is linked to the actual need of students. For example, if I notice a lack of interaction during classes, I may decide to use a means that increases interaction such as the Kahoot platform to add an element of fun and challenge to the lessons, which enhances student participation." (T-2).

3.3 Technology as a tool for understanding abstract concepts

One of the drives for teachers to make decisions to integrate and use technology in their teaching is to use it to facilitate students' understanding of abstract and complex concepts through what it offers in terms of multimedia, simulations, and interaction.

Several participating teachers asserted that they use technology to enhance students' understanding of abstract and complex concepts, For instance, participant (T-8) states:

"My use and integration of technology in my teaching are due to my keenness to employ multimedia such as PowerPoint presentations, videos, and interactive software to enhance students' understanding and awareness of difficult and abstract ideas and concepts." (T-8).

Participant (T-4) also referred to this motive when he said:

"One of the factors that color my decision to use technology is its use in facilitating students' understanding of abstract concepts, in addition to my handling of the issue of frequent student absences, as I sometimes send them something based on technology to compensate for their absence." (T-4).

Another participant (T-7) contributed to the idea of using technology to understand abstract concepts, as she was saying:

"My decision to use technology is usually based on identifying the problem that technology can solve. For example, if students have difficulty understanding complex scientific experiments, I decide to look for digital simulation tools to simplify these concepts." (T-7).

3.4 Technology as a response to external requirements and expectations.

As part of the Saudi Ministry of Education's efforts to develop educational curricula at various educational levels, it has developed all plans and curricula based, *inter alia*, on responding to the requirements of achieving 2030 Vision, preparing students to acquire the components of the knowledge economy, facing the requirements and challenges of the

future, and providing advanced curricula that support students' acquisition of 21st century skills and the Fourth Industrial Revolution (Ministry of Education, 2024). Accordingly, teachers are expected to integrate technology into their teaching practices, which is one of the indicators and rubrics in the light of which teachers are evaluated. Studies indicate that one of the factors that may motivate teachers to use technology is the need to meet some external requirements (Abedi, et al., 2023; Baek, Jung & Kim, 2008).

Participant (T-8) indicated this, saying:

"My employment of technology and my decision to adopt it are related to work requirements... This is linked to educational policy orientations that focus on incorporating modern technology into teaching and improving student learning." (T-8).

For the same reason for using technology, participant (T-3) said:

"Honestly and realistically, my motive is to fulfill the expectations required from us. As you know, we are required to use interactive learning strategies... After Covid-19 and the emergence of the Madrasati platform, we have been required to use technology and this platform... We, Doctor, use the Madrasati platform constantly to send homework and assignments to students. We also return to teaching via the platform during rainfall if study is suspended. We also use Zoom and WhatsApp to communicate with parents, given that I am an elementary school teacher." (T-3).

As for the semi-structured interviews conducted with educational supervisors, they were intended to deepen our understanding of teachers' motivation to use and integrate technology into their teaching practices, and provide extensive details based on the educational supervisors' experience in supervising teachers and monitoring their experiences and expertise in this regard. The aim of the semi-structured interviews with educational supervisors, as previously indicated, is to compare the results of the analyses of these interviews with those of the analyses of the interviews with teachers. In addition, the semi-structured interviews with educational supervisors aim to provide a vision of the best and most effective way to use and integrate technology into education, with examples.

The results of the interviews with educational supervisors showed that they tend to confirm the results of interviews with teachers. Most of them believe that teachers' use of technology is mostly superficial and functional. For example, the educational supervisor (S-1) states:

"Our observations indicate that despite the great support, guidance and training provided to fellow teachers in the field, most of our fellow teachers' use of technology is formal... They use technology

to deliver lessons only... When technology is mentioned, only PowerPoint would come to minds of some of them... Another use or motivation is to communicate with students and send assignments, whether via the platform or Zoom... Personally, I do not see that our teachers' use of technology in most cases is based on any educational theory or philosophy... In other words, their use of technology is for the sake of technology itself, not for the sake for achieving an educational goal." (S-1).

The above is confirmed by the statement of the educational supervisor (S-2) in which he said:

"Our teachers tend to use technology to communicate with students and parents. Also, one of the common uses of technology is to present and display lessons via a projector, whether presenting the lesson in the form of PowerPoint slides or in video clips related to the lesson and its content or for entertainment... Presenting the lesson to learners via technology is usually organized and attractive and includes some multimedia such as images and videos. However, all of this is done by the teacher in a traditional teaching manner. Students rarely use technology to enhance and support their learning or engage in deep learning practices. We seek to use technology to support learning and enhance deep learning practices, God willing." (S-2).

Regarding the ideal and effective use and integration of technology into education, some educational supervisors indicated that the effective use and integration of technology require working to provide opportunities for students' deep learning, enabling them to build their knowledge and engage in authentic learning tasks based on the active role and interaction of the learner.

The above-mentioned idea is confirmed by the statement of the educational supervisor (S-4), as she was saying:

"As an educational supervisor, I hope to find models for using technology and technological innovations, the Madrasati platform, and other platforms that give the learner the opportunity to choose and learn for himself and build his knowledge. In this desired usage, technology is an enabler and facilitator for students, who learn, research, build knowledge, design and use deep-learning applications that exploit technology and its potential, not passive students who are mere recipients of information and knowledge. In this way, we can direct the use of technology in the light of the constructivist philosophy and learning strategies based on the learner, research and exploration." (S-4).

The educational supervisor (S-3) also elaborates the concept of the effective use of technology in education, saying:

"In my view, the effective and ideal employment of technology is related to the teacher himself, as he is the success factor in this subject. I will explain to you what I mean... The teacher may use the best technologies in a traditional way that is not different from the traditional teacher-based teaching methods and styles... He employs them in conveying information to students... For example, the teacher may use the interactive whiteboard or educational platforms and other technologies as tools to display content and convey it to students... as display tools only and in a way that does not differ much from the role of the traditional whiteboard. The only difference may be in the form, aesthetics and attractiveness of the content presented... that is, adding colors and images. On the other hand, the teacher may be creative in his use of these technologies in a way that supports student interaction and cooperation in learning, research and exploration by employing technology to achieve these goals. More clearly, the capabilities and features available in many technologies can be employed... Today, we also have artificial intelligence, generative artificial intelligence, the Internet of Things, etc... The capabilities of these technologies can be used to support student engagement in authentic and deep learning tasks in which students learn using technology in research, exploration, investigation and problem solving, which are learner-based constructivist learning processes. The learner is the one who takes charge, leads and directs his learning process according to his abilities, desire, potential and self-direction. The learner should not be a passive recipient, and the technology should not be a mere tool in the hands of the teacher. (S-3).

Furthermore, the educational supervisor (S-2) summarized his opinion in what makes effective use and integration of technology into teaching practices, by saying:

" let my recap my idea in what make effective use of technologies.. As a supervisor of science for long time, I can say that technologies by themselves have no values... the value is in how we use them .. in how teachers use them.. do they use technologies as show off .. as add-on as appendix... in this way they have no benefit and value. We need to use technologies to facilitate students learning .. self-learning, collaborative learning .. students need to use technologies to research, to investigate and to get the knowledge by themselves. Technologies as you know my friend have great

capacities and they need to invest them in their learning. these technologies should be in students hands not teachers hands." (S-2).

4. Discussion of the Results

The above results show that there are four motives for teachers to integrate technology into their teaching practices. First, technology is a means of presenting content in an attractive way. However, this use of technology does not support student learning or enable them to build their knowledge and experiences. The teacher is still the focus of the educational process and still plays the role of the information indoctrinator. This use of technology within the scope of traditional teaching practices does not greatly support students' active and constructivist learning or their engagement in learning processes and tasks (Fullan & Langworthy, 2014; Prestridge, 2017). This motive for using technology can be described as a means of using a productive tool that contributes to facilitating and improving lesson preparation and content delivery, which is consistent with the results of the study of Abedi et al., (2023).

The second motive for teachers to use technology is to motivate students. This is due to the breadth and capabilities of technological innovations and the features and characteristics they include that attract, engage, and motivate learners, including interactivity, media diversity, the use of game features in education, such as gamification, and the employment of audience response techniques such as those of Kahoot software. This result is consistent with the results of Dash and Kuddus (2019) and Tomczyk (2022). It is also consistent with the results of Kwon (2017), which showed that the most common motive for teachers to make their decisions to integrate technology into education is to use it to motivate students and attract their attention and interest (Kwon, 2017).

One of the most prominent motivations for teachers to decide to integrate technology is to use it as a means to facilitate their students' understanding of abstract and complex concepts, through multimedia, simulation and interactive software, which enable learners to understand complex concepts and visualize them in three-dimensional forms that can be explored. This result is consistent with the results of many studies, such as Dash & Kuddus (2019); Harrison (2006); Maharjan et al., (2022); and Shaikh et al., (2022).

The results showed that one of the motivations for teachers to use and integrate technology into their teaching is related to responding to external requirements and expectations, as teachers are usually required to use technology and employ it in their teaching. This result confirms the findings of previous studies that one of the factors that may motivate

teachers to use technology in their teaching is responding to external requirements and expectations (Abedi, et al., 2023; Baek, Jung & Kim, 2008).

As for educational supervisors, their opinions regarding teachers' motives for making decisions to integrate instructional technology into their teaching practices were largely consistent with the results of the analyses of the interviews with teachers, as the educational supervisors also confirmed that teachers' use of instructional technology is mostly to display content and lessons, motivate students, and communicate with them. Moreover, educational supervisors have shown their vision for the effective use of instructional technology, as the effective use of instructional technology requires providing authentic learning opportunities for learners in which the capabilities of technology are employed and in which learners are allowed to choose and manage learning processes where they can play active roles based on research, exploration, investigation, reflection, problem solving, cooperation and collaboration (Abedi et al., 2023; Baek, Jung & Kim, 2008; Ertmer & Ottenbreit-Leftwich, 2010).

This approach to technology is supported by a number of studies such as Hannum & McCombs (2008) and McKnight et. al., (2016), which emphasize the importance of the learner being the focus of the educational process, the importance of employing technology and designing learning environments in a way that supports the learner's active and effective engagement in authentic learning practices and tasks, adopting learning and teaching strategies based on the learner and his activity, and allowing for positive interaction and cooperation among learners to build their knowledge.

5. Insights

1. The teacher is the cornerstone of the success or failure of using and adopting technology in education.
2. Teachers tend to use technology as an aesthetic, and motivational tool or to respond to external requirements and expectations.
3. Teachers tend to use technology as an add-on to traditional teacher-based teaching strategies.
4. The effective use of technology requires using it in constructivist learning tasks and activities that involve students in authentic and deep learning activities.

6. Study recommendations

Considering the findings of the study, the researcher recommends the following:

1. Technology should not be regarded as mere aids, but rather as tools and systems to enrich students' learning experiences.

2. Professional development programs should be developed to support teachers in employing technology effectively.
3. There is a need to develop guidelines for the best technology-supported teaching practices.
4. There is a need to train teachers to adopt constructivist teaching practices that employ technology and facilitate deep and authentic student learning.

7. Future Research

1. Studying the impact of different educational philosophies and beliefs of teachers on their teaching practices which are based on integrating technology.
2. Studying the impact of a TPACK-based professional development program on improving teachers' technology-based teaching practices.
3. Studying the impact of teachers' awareness and their ability to use instructional design competencies on their teaching practices which are based on integrating technology.
4. Studying the impact of action research on improving teachers' teaching practices and their integration of technology.

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