

Teachers' Attitudes Towards the Use of Interactive Whiteboards in the English Secondary School Classroom in Kuwait

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Abstract—This study aims to investigate teachers' attitudes towards the use of interactive whiteboards (IWB) in the English secondary school classroom. The study also investigates the problems that might face teachers while using the IWB. The data were gathered using a qualitative method which included interviews with seven English teachers and four observation exercises in different cities in Kuwait. The result of this study revealed that teachers have a positive attitude towards the use of the IWB in Kuwait. The findings of this study show that the IWB can be helpful as it can save time during the lesson and reduce teachers' efforts in writing on the board; the IWB might be helpful in simplifying the topics that teachers explain in the lesson. It was also found that the IWB might increase the level of concentration and participation in the lesson. In spite of the fact that the teachers have a positive attitude towards the use of the IWB in the lesson, there are many problems that can face teachers while using the IWB. The findings show that a lack of training, technical issues, a lack of support, restrictions in accessing some educational websites and anxiety in using governmental property could promote a gap between the IWB and the teachers using the IWB as an instructional tool.

Index Terms—Interactive Whiteboards (IWB), teachers' attitudes, technical challenges, instructional technology

I. INTRODUCTION

In recent years, research on IWB integration has continued to evolve, particularly in the Middle East and North Africa (MENA) region. Issa et al. (2022) explored factors influencing IWB adoption in Arab classrooms, highlighting that institutional support and digital competence significantly predicted usage frequency. Similarly, Turan and Akdag-Cimen (2020) conducted a meta-analysis on TPACK implementation and found that most empirical studies emphasized the importance of TPK and TCK in bridging theory with practice. Moreover, Issa et al. (2024) proposed a context-sensitive training model for multilingual teachers that aligns with the TPACK framework. Their findings suggest that effective professional development in educational technology must consider regional infrastructure, language diversity, and institutional constraints. These insights are particularly relevant to the Kuwaiti context, where ICT adoption has often been guided by top-down initiatives lacking localized adaptation (Alshraah et al., 2024).

This study builds upon these recent developments by exploring how English teachers in Kuwaiti secondary schools experience the integration of IWBs and how gaps in TPACK competencies affect their instructional practices. Furthermore, the survey of the current showed that 77% of mathematics teachers, 67% of science teachers, and 49% of language teachers in high schools integrated IWBs into their teaching practices (Goodison, 2003).

Kuwait has also taken significant steps to integrate ICT into its educational system, following the example of Western countries. The first initiative to introduce ICT in Kuwaiti schools dates back to 1996, with an investment of approximately 24 million Kuwaiti Dinars (Al-Harbi, 2009). This initiative, led by the Ministry of Education (MOE) and supported by the Kuwaiti government, aimed to modernize the educational system by familiarizing teachers and students with new technological tools, such as computers and overhead projectors, for instructional purposes. Initially, the use of these tools was relatively basic, focusing on educational software to enhance students' foundational skills and using overhead projectors to display images for classroom learning (Issa et al., 2022).

The TPACK framework, although introduced in this study, has not been fully unpacked in terms of its pedagogical implications. To achieve a more nuanced understanding, it is important to analyze teachers' competencies within the individual dimensions of the framework specifically, Technological Pedagogical Knowledge (TPK) and Technological Content Knowledge (TCK). For instance, teachers' tendency to rely on PowerPoint slides and avoid interactive features such as drag-and-drop or annotation tools indicates a gap in TPK. Likewise, their limited ability to represent subject-specific concepts through IWB tools reflects a deficiency in TCK. Incorporating Saddam et al.'s (2024) validated TPACK survey instrument in future research could yield measurable insights into these knowledge gaps. Such an approach would

help map the cognitive and practical barriers that prevent effective IWB integration and support more targeted training interventions.

Aim and Objectives

This study aims to investigate teachers' attitudes towards the use of the interactive whiteboard in English as a foreign language classroom in a Kuwaiti secondary school. The focus of this dissertation will be on both novice teachers with one year of teaching experience, and in-service teachers with five years or more experience; specifically, this study will focus on attitudes towards using the IWB in their English lessons. It also investigates in depth the factors that could influence English teachers' attitudes.

The objectives of this study are as follows:

- To explore the overall attitudes of English teachers in Kuwait towards the use of IWBs.
- To identify perceived benefits of using IWBs in enhancing teaching efficiency and student engagement.
- To investigate specific challenges technical, pedagogical, or institutional that affect IWB integration.
- To examine how internal (e.g., teacher training, familiarity) and external (e.g., infrastructure, support) factors influence teachers' use of IWBs.
- To analyze teachers' use of IWBs through the lens of the TPACK framework, assessing how technological, pedagogical, and content knowledge intersect in practice.

Furthermore, the study will discuss the TPACK framework in the literature review to provide a comprehensive understanding of technology integration in teaching and its implications for the effective use of the IWB in instructional settings.

Research Question

To better understand the primary research question, it has been divided into two sub-questions. These sub-questions will provide a deeper insight into the factors that may influence teachers' attitudes, whether positively or negatively, toward the use of Interactive Whiteboards (IWB) in the classroom.

Main Research Questions:

- What are the attitudes of English secondary school teachers in Kuwait towards the use of interactive whiteboards (IWBs) in their classrooms?
- How do English teachers perceive the impact of IWBs on their teaching practices and students' learning outcomes?
- What are the main challenges and limitations that teachers encounter while using IWBs in English secondary school classrooms?

II. STUDY BACKGROUND

In September 2014, the Kuwaiti Ministry of Education introduced Interactive Whiteboards (IWBs) at Maria Al-Qubtia School to shift from traditional blackboard teaching to a modern, technology-enhanced approach. According to Alshrsah et al. (2024), the ministry invested 4 million Dinars (approximately 2 million pounds) to install 8,000 IWBs across 180 schools. Dr. Khalid Rashid, who led the project, emphasized the positive impact of IWBs on teaching and learning. Miss Al-Sallal, responsible for secondary education, advocated for the adoption of IWBs in primary schools as well. However, despite the significant investment, there is a concern that policymakers may overlook the influence of IWBs on teachers' attitudes, which can be either positive or negative. Effective implementation requires aligning technology with pedagogy to enhance teaching practices.

Despite the substantial investment in IWBs, there is a need to understand the Technological Pedagogical Content Knowledge (TPACK) framework to effectively integrate technology into education. According to Koehler and Mishra (2005) cited in Wachira and Keengwe (2010), successful technology integration requires a dynamic relationship between technology, pedagogy, and content. The TPACK framework, derived from Shulman's (1986, 1987) PCK model, includes seven components:

- Technological Knowledge (TK): Proficiency in using technology, such as IWBs.
- Content Knowledge (CK): Mastery of subject matter, like English grammar.
- Pedagogical Knowledge (PK): Understanding of effective teaching methods.
- Pedagogical Content Knowledge (PCK): Strategies for teaching specific content.
- Technological Content Knowledge (TCK): Skills to use technology for teaching content.
- Technological Pedagogical Knowledge (TPK): Knowledge of how technology can transform teaching practices.
- Technological Pedagogical Content Knowledge (TPCK): Integration of all elements to enhance learning, such as using PowerPoint effectively. Understanding these components is essential for teachers to connect technology with pedagogy and content, ensuring the successful use of IWBs in classrooms.

The term 'attitude' in the context of this study refers to teachers' perspectives on using IWBs. Teachers' attitudes play a crucial role in the adoption and effective use of IWBs. Positive attitudes can facilitate integration, while negative attitudes can hinder it (Saddam & Hassan, 2024). Understanding these attitudes helps in designing professional development programs that address teachers' concerns and enhance their readiness to use technology.

The practical use of IWBs by teachers involves their integration into daily lessons, the types of activities facilitated by this technology, and the pedagogical benefits observed. Effective use of IWBs requires not only technical skills but also the ability to align these tools with pedagogical objectives.

English teachers face several challenges when using IWBs, including technical difficulties, limited training, and resistance to change. Understanding these challenges is vital to developing strategies that support teachers in overcoming them, ensuring the successful integration of IWBs in teaching English.

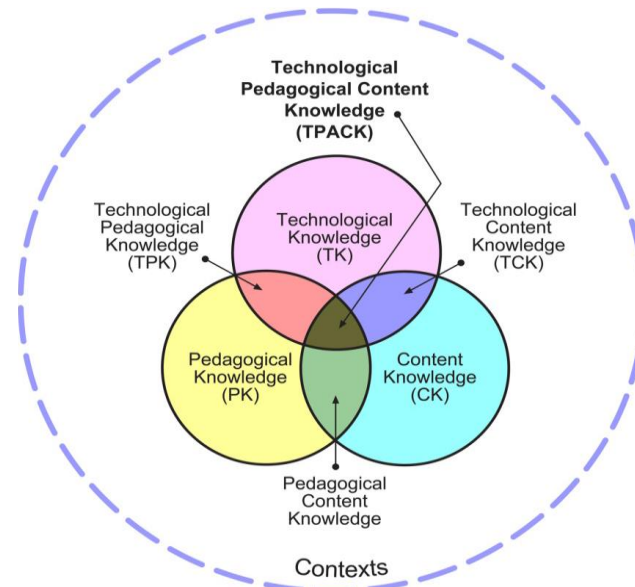


Figure 1. The TPACK Framework and Its Knowledge Components (Koehler & Mishra, 2009, p. 63)

Contextual factors, such as limited training, insufficient technical support, and inadequate infrastructure, further complicate the integration of IWBs. Kohler and Mishra (2009) highlight that these factors can hinder the relationship between teaching and technology. For instance, schools in Kuwait often lack platforms for hardware maintenance, suffer from limited internet speed, and provide insufficient training sessions for teachers. Additionally, heavy workloads and administrative pressures exacerbate the difficulties teachers face in adopting IWBs effectively. Albirini (2006) suggests that policymakers should reduce teachers' workloads to allow them time to adapt to new technologies. The effectiveness of the TPACK framework relies heavily on contextual support, which includes providing high-quality equipment, comprehensive training, and a supportive school culture that conveys teachers' needs to policymakers.

A. Benefits of Interactive Whiteboards for Teachers

Numerous studies have highlighted the benefits of IWBs for teachers and students, particularly in saving lesson time and enhancing access to online resources. According to Levy (2002), cited in Elaziz (2010), IWBs reduce the time spent writing on traditional boards, enabling teachers to focus more on instructional activities. Teachers can also store and update their written work and lesson plans for future use. A study by Wall et al. (2005) revealed that teachers felt more creative and effective in their teaching demonstrations when using IWBs. Furthermore, IWBs facilitate immediate feedback to students, which accelerates teaching and allows instructors greater flexibility (Cuthell, 2005). The ability to access various educational websites directly in the classroom also helps minimize teachers' stress and workload (Elaziz, 2010). In a study involving Turkish teachers, 84% of participants reported that IWBs helped them save lesson time and enhance their teaching by presenting materials directly instead of writing on the board.

B. Benefits of Interactive Whiteboards for Students

IWBs also offer significant advantages for students (2015), observed that the use of IWBs in lessons led to increased student participation and positively influenced their behavior. The ability to integrate visual media through IWBs helps students recall information more effectively (Turel & Demirli, 2010). Additionally, IWBs promote interaction among students, enhancing their engagement and collaborative learning (Higgins et al., 2007; Elaziz, 2010; Schmid, 2008, cited in Alghamdi, 2015). These benefits suggest that IWBs can improve both teaching efficiency and student learning outcomes by saving instructional time and encouraging active participation (Issa et al., 2024).

C. Factors Influencing the Effective Use of IWBs

The successful integration of IWBs depends on several factors, including teachers' pedagogical knowledge, media literacy, and experience with technology, as well as access to training and resources. Schmid (2009, p. 494) emphasizes that the effectiveness of technology use in education is determined by "teachers' pedagogical views and knowledge, teachers' and pupils' levels of media literacy, teachers' experience with technology, and teachers' access to technology

training.” Policymakers play a crucial role in addressing these factors by ensuring that schools are equipped with high-quality IWBs and that teachers receive adequate training not only in operating IWBs but also in enhancing their pedagogical practices. Comprehensive training programs that develop teachers' TPACK competencies can help bridge the gap between traditional teaching methods and technology-enhanced instruction. By addressing these factors, the TPACK framework can be effectively implemented, ensuring that the introduction of IWBs leads to meaningful improvements in teaching and learning outcomes (Saddam & Hasan, 2024).

D. Teachers' Attitudes Towards the Use of Interactive Whiteboards (IWBs)

The term attitude has been defined in various ways. Allport (1935), cited in Banaji and Heiphetz (2010), described it as a mental and neural state of readiness, shaped by experience, which influences responses to situations. However, this definition lacks clarity. Eagly and Chaiken (1993, 1998) offered a more straightforward explanation, defining attitude as a psychological tendency expressed by evaluating an entity with a degree of favor or disfavor. From a technological perspective, attitude involves positive or negative feelings toward the use of new technology (Ajzen & Fishbein, 1980; Venkatesh et al., 2003).

Research from various countries highlights that teachers generally have positive attitudes toward IWBs. Studies in Turkey (Saltan et al., 2010) and Iran (Shams & Keabi, 2015) reported that teachers found IWBs beneficial and motivating. However, attitudes can vary between novice and experienced teachers. Alghamdi (2015), found that novice teachers were more open to using IWBs compared to in-service teachers, who were more hesitant.

Training plays a critical role in shaping teachers' attitudes. Studies suggest that insufficient training can negatively impact teachers' perceptions of IWBs (Schmid & Schimmack, 2010). In Kuwait, where IWBs were introduced only recently compared to Western countries, a lack of training and support may pose challenges to their effective integration.

III. METHODOLOGY

A. Research Methodology

This study aims to investigate teachers' attitudes towards the use of interactive whiteboards (IWBs) in the classroom and how this technology can influence their attitudes both positively and negatively. Measuring and understanding these attitudes can be challenging with numerical and statistical data alone, as each teacher has unique perspectives and daily experiences with IWBs. Additionally, teachers have different ways of thinking and varying approaches to using technology in their classrooms. The insights gained from teachers' experiences can provide a more accurate picture of the educational environment, which may be better understood through words rather than numbers.

B. Data Collection

The study employed multiple data collection methods to enhance validity and provide a comprehensive understanding of teachers' attitudes towards using interactive whiteboards (IWBs) in classrooms. According to Patton (2002), using more than one method helps to minimize biases and provides a clearer picture of the research context. Two primary methods were chosen: classroom observations and semi-structured interviews.

Classroom Observation: This method offered real-time insights into teachers' behaviors and attitudes in a natural setting, aligning with Cohen's (2011) view that observation can capture live data. However, the method's effectiveness depends on the observer's impartiality. Structured observation and note-taking were used to systematically examine factors affecting teachers' attitudes towards IWBs.

Semi-Structured Interviews: These were conducted face-to-face and audio-recorded to gain in-depth perceptions from teachers. The flexibility of this approach allowed participants to express their views freely, helping the researcher uncover attitudes and issues that might not be evident through observation alone. While semi-structured interviews provide rich data, they can be time-consuming and depend significantly on the researcher's interviewing skills.

C. Participants

Seven English teachers participated in this research, all of whom teach at secondary school level. They also teach and live in Aljahra, Al Ahmdi and AlFarwaniya, which are cities far away from the capital of Kuwait; all the participants in this study were chosen Depending on the Principal of the school who knows the teachers who use the IWB in their lessons. The interviews were all face-to-face interviews and all names have been kept confidential; those names mentioned are not the real names of the teachers. This section, will provide a brief background about the English teachers who use the IWB in their classroom as a part of their jobs. The following table summarizes the information about the participants:

TABLE 1
THE PARTICIPANTS' BACKGROUNDS, TEACHING EXPERIENCE, AND THEIR FAMILIARITY WITH IWBs

Name	Teaching Experience (Years)	Home Country	Current City in Kuwait	Position	Materials Used	Technology Experience
Mr. Anas	15	Syria	Al Farwaniya	Head of English Department	English Headway course book, IWB	3 years with IWB, previously traditional methods
Mr. Mohamed	20	Egypt	Al Ahmadi	Head of English Department	English Headway course book, IWB	3 years with IWB, previously traditional methods
Mr. Islam	5	Egypt	Al Farwaniya	English Teacher	IWB, previously overhead projector	Recently started using IWB
Mr. Mehran	2	Tunisia	Al Farwaniya	English Teacher	IWB	Experienced with IWB
Mr. Nasser	2	South Africa	Al Jahra	English Teacher	IWB	Used IWB since beginning in Kuwait
Mr. Methat	7	Egypt	Al Ahmadi	English Teacher	English Headway course book, IWB	Started using IWB after joining in Kuwait
Mr. Mahmoud	5	Egypt	Al Ahmadi	English Teacher	English Headway course book, IWB	Started using IWB after joining in Kuwait

D. Data Analysis

To analyze the data, the researcher employed the content analysis technique, a systematic method of coding and categorizing text (Vaismoradi et al., 2013). This approach is particularly useful for examining large amounts of text (Cohen et al., 2011) and has been utilized by other researchers as well (Denscombe, 2010). The purpose of choosing this technique was to organize the data into themes based on the literature review and to identify significant details highlighted by the participants regarding factors that could influence teachers' attitudes either positively or negatively.

IV. RESULTS AND DISCUSSION

This section presents findings from teacher interviews and classroom observations, structured according to the study's two sub-questions. The analysis is organized into key thematic categories, each linked to relevant literature to ensure coherence and academic rigor.

A. Perceived Benefits of Interactive Whiteboards in the Classroom

This section addresses Sub-Question A:

How do Kuwaiti English teachers perceive the impact of IWBs on their teaching practices and students' learning outcomes?

a. Time-Saving and Lesson Efficiency

Several participants in the study highlighted the significant role Interactive Whiteboards (IWBs) play in enhancing classroom efficiency by saving valuable instructional time. Teachers such as Mr. Methat, Mr. Anas, and Mr. Mohammed reported that IWBs reduced the need to write manually on the traditional blackboard, thus allowing them to allocate more time to interactive and engaging activities. For instance, Mr. Anas explained, "When I make questions in the past, I wrote it by hand, but now I am not writing." This shift from manual writing to digital projection enables a streamlined flow of lessons and reduces downtime, which is crucial for maintaining student attention and maximizing instructional time. Classroom observations corroborated these testimonies, showing that teachers frequently used USB flash drives to store and display pre-prepared teaching materials on IWBs. This practice enabled quick retrieval and presentation of lesson content, eliminating the interruptions commonly caused by writing on the board during class. As a result, lessons were delivered more smoothly, with a greater emphasis on interactive discussions and activities rather than passive note-taking.

This finding resonates with earlier research by Levy (2002), who noted that IWBs save considerable board-writing time, enabling teachers to focus more on pedagogy than on logistical tasks. Similarly, Cox (2004) argued that IWBs enhance dynamic classroom management by allowing teachers to rapidly switch between different media and resources, thus maintaining a fluid and engaging learning environment. Additionally, Smith et al. (2005) observed that the ability to preload lesson content on IWBs supports better lesson planning and delivery, leading to increased instructional efficiency.

b. Enhanced Explanation and Visualization

Participants consistently emphasized the pivotal role Interactive Whiteboards (IWBs) play in facilitating enhanced explanation and visualization during lessons. Teachers such as Mr. Mehran and Mr. Methat observed that IWBs significantly supported multimodal instruction by allowing the integration of images, videos, animations, and interactive slides. They noted that this capability was particularly effective in simplifying abstract or complex topics, especially in grammar and vocabulary instruction. For instance, Mr. Mehran explained how using visual aids allowed him to illustrate grammatical structures through color-coded sentence patterns and animated sentence trees, making it easier for students to grasp linguistic rules that are often difficult to explain through text alone.

In observed classrooms, instructors made extensive use of PowerPoint presentations embedded with relevant visuals such as labeled diagrams, thematic illustrations, and contextual photographs to foster deeper comprehension. For example, when teaching vocabulary related to the environment, teachers displayed images of natural settings, pollution sources, and recycling practices, which enabled students to link new terms with real-world contexts. These visual cues served not only to attract student attention but also to anchor linguistic content in meaningful, relatable scenarios.

c. Student Engagement and Interaction

A recurring theme in the interviews and classroom observations was the positive impact of Interactive Whiteboards (IWBs) on student engagement and classroom interaction. Many teachers noted that the visual and interactive capabilities of IWBs significantly heightened students' attention and interest during lessons. Mr. Mehran, for instance, commented that students exhibited higher levels of concentration when multimedia elements such as videos or images were integrated into the lesson. These visual stimuli not only captured students' interest but also provided concrete references that helped maintain focus throughout the class period.

Mr. Nasser further observed that IWBs played a crucial role in facilitating vocabulary acquisition by making word associations more memorable. "It helps make the remembering of vocab easier," he stated, attributing this effect to the visual reinforcement provided by the technology. Mr. Islam offered even stronger praise for the role of IWBs in his teaching practice, stating: "It is very useful... we need it... It is highly important for me; it is impossible to work without it." His comment underscores the extent to which IWBs have become integral to lesson planning and delivery for some educators, particularly in classrooms that prioritize visual learning and student interaction.

d. Positive Teacher Attitudes Toward IWBs

Across all interviews, participants expressed overwhelmingly positive attitudes toward the use of Interactive Whiteboards (IWBs) in their classrooms. These favorable perceptions were evident in the way teachers described IWBs as not only beneficial but essential to modern teaching practices. Mr. Mohammed, for instance, characterized the IWB as a "great support for the teacher," highlighting its role in facilitating lesson preparation and delivery. Similarly, Mr. Nasser referred to the IWB as "one of the most technological innovations in teaching," underscoring his belief in its transformative potential for pedagogy and classroom engagement.

These responses reflect a broader trend in the literature that links positive teacher attitudes with successful integration of educational technology. Paraskeva et al. (2008) emphasize that teacher perceptions and willingness to adopt technology are among the most critical factors influencing the effectiveness of ICT implementation in educational settings. When educators hold favorable views of tools like IWBs, they are more likely to explore innovative teaching strategies, invest time in developing digital resources, and persist through technical or logistical challenges associated with technology use.

B. Challenges and Barriers to Effective IWB Integration

What are the main challenges and limitations that teachers encounter while using IWBs in English secondary school classrooms?

a. Predominant Use as a Teacher-Centered Tool

Although Interactive Whiteboards (IWBs) are designed to foster interactive, student-centered learning, classroom observations revealed that their actual use in many cases remains predominantly teacher-centered. Rather than leveraging the interactive features of the technology to facilitate student participation, most teachers employed IWBs primarily as projection tools for delivering pre-prepared content. For instance, Mr. Islam admitted, "I just use PowerPoint to show it to the student," indicating a passive use of the IWB as a display device rather than an interactive pedagogical tool. Similarly, Mr. Mehran reflected critically on this practice, stating: "It is still teacher-centered here, and I wish it would be student-centered," revealing his awareness of the gap between the potential of the technology and its implementation.

b. Insufficient Pedagogical Training

A recurring concern among participants was the lack of adequate pedagogical training following the introduction of Interactive Whiteboards (IWBs) in their schools. While many teachers demonstrated basic operational knowledge of the technology, their application of its features remained largely superficial. Mr. Methat reflected on the limited scope of the training he received, stating: "It was just two hours on how to use the IWB," suggesting a purely technical orientation that focused on functionality rather than pedagogical application. Similarly, Mr. Mehran highlighted the need for more comprehensive, practice-oriented support: "We need extra time to discover the variety of the programme."

c. Technical Limitations and Malfunctions

Despite the potential of Interactive Whiteboards (IWBs) to enrich classroom experiences, recurring technical limitations often impeded their effective use. Multiple participants reported frequent malfunctions that disrupted the flow of instruction and diminished the perceived reliability of the technology. Mr. Mehran shared a typical frustration: "The screen sometimes does not react... I need to restart it again," while Mr. Islam pointed out "a mismatch between the computer and the screen," referring to synchronization problems between the IWB hardware and the connected computer system.

d. Internet Access and Administrative Restrictions

Another significant barrier to effective integration of Interactive Whiteboards (IWBs) in the observed classrooms was the limited access to internet-based educational resources. Several teachers reported restrictive administrative policies and infrastructural constraints that prevented them from utilizing the full range of digital content available online. Mr. Mehran voiced his frustration: "We cannot download any helpful programmes unless after asking permission... I use my

own internet,” indicating that the approval process was often bureaucratic and delayed. Likewise, Mr. Anas and Mr. Methat noted that widely used educational platforms like YouTube were entirely blocked on school networks, making it difficult to incorporate videos, tutorials, or interactive media into lessons.

e. Lack of Technical Support and Maintenance

One of the most recurrent challenges highlighted by participants was the insufficient technical support for maintaining and troubleshooting Interactive Whiteboards (IWBs). Teachers commonly reported long delays in resolving technical problems, leading to frustration and reduced reliance on the technology. Mr. Nasser commented: “We sometimes wait a week for someone to fix the IWB,” a sentiment echoed by others who described slow or inconsistent maintenance responses.

f. Anxiety Over Using Government Property

A notable psychological barrier to the effective use of Interactive Whiteboards (IWBs) was teachers’ anxiety about handling government-owned equipment. Multiple participants expressed hesitation and fear of causing unintentional damage to the devices, which led to overly cautious behavior and, in some cases, complete avoidance. Mr. Methat remarked: “Teachers feel afraid to use it, not to damage it... that caution may hinder creativity.” This fear reflects a broader issue of perceived liability, where teachers are made to feel personally responsible for any malfunction or wear and tear on school technology.

C. Applying the TPACK Framework to the Findings

The findings of this study can be better understood through the Technological Pedagogical Content Knowledge (TPACK) framework, which highlights the intersection between technology use, subject matter knowledge, and pedagogical strategies (Koehler & Mishra, 2009). Analysis of teacher interviews and classroom observations reveals an imbalance among TPACK’s core components. Most participants displayed a basic level of Technological Knowledge (TK) for example, operating the IWB to display PowerPoint slides, videos, or saved materials. This reflects a surface-level familiarity with the tool itself.

TABLE 2
SUMMARY OF THE MAIN RESULTS AND FINDINGS

Theme	Positive Outcomes	Barriers/Challenges
Teaching Efficiency	Saves time, reusable materials	Curriculum pressure reduces interactivity
Student Engagement	Visuals increase focus & recall	Teacher-centered use limits interaction
Technical Aspects	Easy material display	Freezing, poor support, low-quality devices
Infrastructure	Some internet access	Blocked websites, no antivirus
Teacher Attitudes	Generally positive	Anxiety over damaging devices
TPACK Use	Some TK evident	Lack of TPK, no deep integration

V. CONCLUSION

This study explored the attitudes of English secondary school teachers in Kuwait toward the use of Interactive Whiteboards (IWBs) in their classrooms. Drawing on qualitative data from classroom observations and teacher interviews, the findings provide important insights into how IWBs are perceived, the effects they have on teaching and learning, and the obstacles limiting their effective use.

The results of this study reveal that most English teachers in Kuwait maintain a positive attitude toward the use of IWBs. They view the technology as a valuable instructional aid that enhances lesson delivery by reducing time spent writing on traditional boards, facilitating lesson preparation, and supporting more organized and efficient teaching. Teachers appreciated the ability to save, revise, and reuse content features that improve workflow and reduce repetition. The general consensus was that IWBs represent a welcomed innovation in the classroom, contributing to professional satisfaction and instructional clarity.

Regarding student outcomes, many teachers observed increased engagement, concentration, and motivation among students when IWBs were actively used. The interactive features of IWBs, when applied effectively, encouraged classroom participation and helped students retain information especially vocabulary more easily. Overall, IWBs were perceived as tools that enrich the learning environment and contribute to improved academic performance.

Despite the generally favorable attitudes, the study identified several key challenges that hinder the full utilization of IWBs:

- Pedagogical limitations: Many teachers used IWBs in a passive, presentation-based manner primarily showing slides via PowerPoint—rather than employing interactive features. This points to gaps in Technological Pedagogical Knowledge (TPK), preventing the shift from teacher-centered to learner-centered instruction.
- Lack of training: Teachers reported insufficient professional development, often limited to short, technical workshops. There was a clear need for ongoing, pedagogically-oriented training programs based on frameworks like TPACK to help teachers connect technology, content, and teaching strategies effectively.
- Technical difficulties: Problems such as screen freezing, projector misalignment, lack of hardware maintenance, and poor internet connectivity disrupted lessons and discouraged reliance on IWBs.

- Institutional constraints: Teachers cited restricted access to useful websites (e.g., YouTube), lack of administrative permission for downloading educational tools, and insufficient IT support as barriers to maximizing IWB functionality.
- Teacher anxiety over using government property: Some teachers hesitated to fully engage with IWBs out of concern for potential damage to the equipment, for which they might be held financially responsible.

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