

Technology Integration in English Language Learning in Saudi Schools

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Abstract

Technology integration has become one of the most important developments in modern education, especially in the field of English language learning. In Saudi Arabia, schools increasingly use digital technologies such as mobile applications, online learning platforms, virtual classrooms, educational games, and digital assessment tools to support English language teaching and learning. This paper reviews recent studies related to technology integration in English language learning in Saudi schools. The review examines how digital technologies are integrated into Saudi EFL classrooms and analyzes the major benefits and challenges associated with technology-supported learning environments. Previous studies indicate that technology can improve student motivation, increase classroom engagement, support interactive learning, and enhance certain language skills such as vocabulary acquisition and reading comprehension. However, the literature also identifies several challenges, including insufficient teacher training, technical difficulties, weak infrastructure, classroom management problems, and concerns related to online assessment and academic integrity. The paper further discusses the importance of teacher readiness and professional development in successful technology integration. Overall, the findings suggest that technology has strong potential to improve English language education in Saudi schools when supported by effective pedagogical practices, proper teacher preparation, and adequate institutional support. The study concludes by recommending further classroom-based research and more comprehensive professional development programs to improve technology-supported English language learning in Saudi Arabia.

Keywords: technology integration, English language learning, Saudi schools, EFL, ICT, digital learning

1. Introduction

Technology has become an essential part of education in the twenty-first century. Educational institutions around the world increasingly use digital technologies to improve teaching and learning processes, particularly in language education. English language learning has experienced major changes because of technological development, as digital

tools such as online learning platforms, mobile applications, virtual classrooms, educational games, multimedia resources, and digital assessment systems are now widely used to support language learning inside and outside classrooms.

In Saudi Arabia, educational reforms and national digital transformation initiatives have encouraged schools to integrate technology into classroom instruction. English language education has become one of

the most important areas affected by these reforms because English is considered an essential skill for higher education, employment opportunities, and international communication. Consequently, Saudi schools increasingly rely on digital learning environments and technology-supported instruction to improve English language learning outcomes.

The COVID-19 pandemic significantly accelerated the use of technology in Saudi education. During the pandemic, schools shifted from traditional face-to-face instruction to online learning environments using platforms such as Madrasati and Microsoft Teams. Teachers and students became heavily dependent on digital learning systems for communication, assessment, and classroom instruction. Even after returning to traditional classrooms, many schools continued using digital technologies as part of blended learning practices.

Despite the increasing use of technology in Saudi English language classrooms, previous studies report mixed findings regarding its effectiveness. Some researchers argue that technology improves student engagement, autonomy, motivation, and language performance. Other studies, however, identify challenges related to teacher preparedness, technical problems, classroom management, assessment reliability, and internet connectivity. Therefore, reviewing recent research is important to better understand how technology is currently integrated into English language learning in Saudi schools and what outcomes have been reported in previous studies.

This paper reviews recent literature related to technology integration in English language learning in Saudi schools. The review examines the major benefits and challenges associated with digital learning environments and discusses how technology affects students, teachers, and classroom practices in Saudi EFL contexts.

Purpose of the Review

The main purpose of this review is to examine how technology is integrated into English language learning in Saudi schools and to analyze the effectiveness of digital technologies in supporting English language education. The review also aims to synthesize findings from

previous studies and identify common themes related to technology use in Saudi EFL classrooms.

More specifically, the review seeks to:

- Examine the different forms of technology used in Saudi English language classrooms.
- Analyze the benefits of technology integration for students and teachers.
- Identify the major challenges affecting technology-supported English language learning.
- Provide recommendations for improving technology integration in English language education.

By reviewing previous studies, this paper aims to provide a comprehensive understanding of current technology integration practices in Saudi English language education.

Research Questions

This review addresses the following research questions:

1. How is technology integrated into English language learning in Saudi schools according to previous studies?
2. What benefits of technology integration in English language learning have been reported in the literature?
3. What challenges have been identified in the use of technology in English language classrooms in Saudi schools?
4. What recommendations have previous studies suggested for improving technology integration in English language education?

Methodology

This study adopts a literature review approach. Instead of collecting new data from participants, the paper analyzes and synthesizes findings from previously published research related to technology integration in English language learning in Saudi schools.

The selected studies were published between 2019 and 2025 and focus specifically on Saudi educational contexts. The reviewed literature includes quantitative studies, qualitative studies, mixed-methods research, and experimental studies. The selected

studies examine different aspects of technology integration, including mobile-assisted language learning, e-learning platforms, ICT-supported teaching practices, online assessment systems, virtual classrooms, and educational games.

The studies were selected based on several criteria. First, the research had to focus on English language learning or teaching. Second, the studies needed to examine technology integration or digital learning practices. Third, the studies had to be conducted in Saudi schools. Finally, the selected studies were limited to recent publications between 2019 and 2025 in order to reflect current educational practices and technological developments.

The findings from these studies were organized into thematic categories to identify common patterns and recurring issues in the literature. The major themes include mobile-assisted language learning, online learning platforms, digital assessment, teacher readiness, and implementation challenges.

Technology Integration in Saudi English Language Classrooms

Technology integration has become increasingly common in Saudi English language classrooms, particularly after the rapid digital transformation that accompanied the COVID-19 pandemic. Previous studies collectively suggest that Saudi schools have gradually shifted toward technology-supported instruction through the use of online learning platforms, virtual classrooms, educational applications, digital assessment tools, and game-based learning activities. Researchers generally agree that technology

integration has positively influenced classroom interaction, student motivation, and learner engagement in Saudi EFL contexts.

Several studies reported positive perceptions toward e-learning and digital instruction among both teachers and students. Alwahoub et al. (2020), Alqahtani (2022), and Alhammad and Alonizi (2025) found that online learning environments improved communication between teachers and learners and encouraged greater student participation in classroom activities. The reviewed studies also indicated that students appreciated the flexibility provided by digital learning systems, especially through online platforms such as Madrasati and Microsoft Teams. Similarly, Al-Harbi and Madini (2024) emphasized that game-based learning tools increased classroom interaction and encouraged students to participate more actively during English lessons.

The literature further suggests that technology integration supports more student-centered learning environments. Teachers reported that digital tools helped diversify classroom activities and facilitated independent learning beyond traditional classroom settings.

In addition, several studies indicated that multimedia resources, educational games, and virtual learning activities improved learner motivation and made English language lessons more engaging and interactive. However, despite these positive findings, researchers consistently highlighted that successful technology integration depends heavily on teacher preparedness, institutional support, and effective pedagogical implementation.

Mobile-Assisted Language Learning

Mobile-assisted language learning has become one of the most widely discussed areas of technology integration in Saudi English language education. Previous studies collectively indicate that mobile technologies provide flexible and interactive learning opportunities that support language development both inside and outside classrooms. Researchers generally agree that mobile learning environments increase learner engagement, encourage independent practice, and improve access to educational resources.

Al-Johali (2019) and Keezhatta and Omar (2019) both reported positive effects of mobile learning applications on English language development among Saudi EFL learners. Their findings showed that mobile technologies contributed to vocabulary acquisition, reading comprehension, and learner motivation. Students who used mobile learning applications demonstrated higher levels of engagement and interaction compared to learners who followed traditional instructional approaches. The reviewed studies also suggested that mobile devices support self-paced learning by allowing students to practice English skills independently according to their individual learning needs.

In addition to improving language performance, mobile-assisted language learning was also associated with greater classroom flexibility and accessibility. Researchers emphasized that mobile applications enable learners to continue practicing English outside formal classroom environments through multimedia activities, reading exercises, and vocabulary applications. Nevertheless, the literature also identified several challenges affecting mobile learning implementation. Teachers frequently reported requiring additional professional training to integrate mobile technologies effectively into classroom instruction.

Furthermore, issues related to internet connectivity, unequal access to digital devices, and potential student distraction remain important concerns in Saudi EFL classrooms.

Overall, the reviewed studies collectively suggest that mobile-assisted language learning has strong potential to improve English language education in Saudi schools when combined with appropriate classroom management strategies and effective pedagogical practices.

Online Learning Platforms and E-Learning

Online learning platforms became particularly important in Saudi education during and after the COVID-19 pandemic. Previous studies consistently reported that Saudi schools increasingly relied on digital learning systems such as Madrasati, Microsoft Teams, and virtual classroom platforms to maintain English language instruction during periods of distance learning. Researchers generally agree that e-learning environments provided important opportunities for communication, collaboration, and learner independence in Saudi EFL contexts.

Several studies found that online learning positively influenced student motivation, participation, and classroom interaction. Alwahoub et al. (2020), Alqahtani (2022), and Alhammad and Alonizi (2025) collectively reported that students enjoyed digital learning experiences and appreciated the flexibility offered by online education. Teachers also viewed e-learning platforms positively because they allowed faster feedback, easier classroom management, and improved communication between teachers and learners. In addition, the reviewed studies suggested that virtual learning environments encouraged students to become more independent and responsible for their own learning processes.

The literature also highlights the educational advantages of online learning systems in English language classrooms. Researchers emphasized that digital platforms provide multimedia resources, interactive activities, online assignments, and opportunities for collaborative learning. These features were found to support learner engagement and create more interactive classroom environments. However, despite these benefits, several studies identified important implementation challenges. Teachers frequently reported difficulties maintaining student attention and participation during virtual lessons, while technical problems and unstable internet connections often interrupted classroom instruction. Some researchers also noted that many teachers continued preferring face-to-face communication for certain language learning activities, particularly speaking practice and classroom discussion.

Overall, the reviewed literature suggests that online learning platforms have become an important component of English language education in Saudi schools. Nevertheless, successful implementation requires reliable technological infrastructure, continuous teacher support, and balanced integration between digital and traditional instructional approaches.

Digital Assessment and Online Evaluation

Digital assessment has become an increasingly important aspect of technology-supported education. Saudi schools now use online quizzes, Google Forms, electronic assignments, and learning management systems to assess student performance.

Alharbi et al. (2021) examined teachers' and students' perceptions of Google Forms as a formative assessment tool in Saudi secondary schools. Both teachers and students viewed digital assessment positively because it provided immediate feedback and supported classroom participation.

Almansour and Alaudan (2022) investigated online assessment during the COVID-19 pandemic. Teachers and parents viewed online assessment as flexible and convenient. However, they also expressed concerns regarding cheating and assessment reliability.

One major concern in digital assessment environments is academic integrity. Teachers often find it difficult to monitor students during online examinations. Technical issues and internet interruptions may also affect student performance and assessment fairness.

Additionally, some teachers question whether digital assessment accurately measures language skills such as speaking and communication abilities. These concerns indicate that schools still need more effective strategies to improve online assessment practices.

Despite these challenges, digital assessment systems provide important educational advantages. They allow faster grading, immediate feedback, and easier classroom management. Therefore, improving online assessment design remains an important priority for Saudi schools.

Teacher Readiness and Professional Development

Teacher readiness plays a critical role in successful technology integration. Even when schools provide digital tools and technological infrastructure, teachers must possess the necessary knowledge and skills to integrate technology effectively into classroom instruction.

Alharbi (2020) examined Saudi EFL teachers' technological pedagogical knowledge using the TPACK framework. Teachers generally believed they possessed sufficient technological knowledge for classroom teaching. However, the study also identified differences depending on educational stage and gender.

Other studies suggest that many teachers still require additional support and training. Al-Johali (2019) found that teachers needed more guidance regarding the effective use of mobile learning applications. Elmahdi et al. (2025) similarly identified teacher training as one of the major barriers affecting ICT integration.

Professional development programs should focus not only on technical knowledge but also on pedagogical implementation. Teachers need practical training regarding lesson planning, digital assessment, student engagement, and classroom management in technology-supported learning environments.

Teacher attitudes toward technology also influence classroom implementation. Teachers who feel confident using digital tools are more likely to integrate technology into their lessons. Conversely, teachers who lack confidence may continue relying on traditional teaching methods.

Therefore, continuous professional development and institutional support are essential for improving technology-supported English language learning in Saudi schools.

Challenges of Technology Integration

Although the reviewed studies generally report positive attitudes toward technology integration, several important challenges continue to affect implementation in Saudi schools.

One major challenge is insufficient teacher training. Many teachers possess basic technological knowledge but still lack confidence regarding classroom implementation. Without effective training, technology may be used only for presentation purposes rather than meaningful language learning activities.

Technical problems also represent significant barriers. Weak internet connections, software issues, and limited access to devices may interrupt lessons and reduce student participation. Some schools may lack adequate technological infrastructure to support advanced digital learning systems.

Assessment and academic integrity remain additional concerns. Studies by Alharbi et al. (2021) and Almansour and Alaudan (2022) indicate that cheating and unreliable assessment practices continue to affect online learning environments.

Alqarni (2023) found that traditional teaching methods still dominate many Saudi English language classrooms despite the availability of digital tools. This finding suggests that technology alone does not automatically transform classroom instruction.

Curriculum requirements and limited classroom time may also reduce opportunities for interactive digital learning activities. Teachers often prioritize completing curriculum objectives over experimenting with innovative teaching strategies.

These findings demonstrate that successful technology integration requires more than simply providing digital tools. Schools must also improve infrastructure, provide continuous training, and support effective pedagogical practices.

Discussion

The reviewed literature demonstrates that technology integration has become a significant part of English language learning in Saudi schools. The findings answer the research questions in several ways. First, the reviewed studies show that technology integration mainly occurs through mobile applications, online learning platforms, digital assessment tools, virtual classrooms, and ICT-supported classroom activities. These technologies are widely used in Saudi schools to support communication, classroom interaction, and independent learning.

Second, the literature consistently reports several benefits associated with technology integration. Most studies indicate that digital learning environments increase student motivation, classroom engagement, flexibility, and interaction. Mobile-assisted language learning, in particular, appears to positively affect vocabulary acquisition and reading comprehension. Online platforms also encourage learner independence and support communication outside classroom settings.

Third, the reviewed studies identify several challenges affecting technology-supported English language learning. Teacher training remains one of the most significant barriers to successful implementation. Many teachers require additional support regarding classroom management, assessment, and instructional design

in digital learning environments. Technical problems, internet connectivity issues, and unequal access to digital devices also continue affecting classroom implementation.

Finally, the literature suggests several recommendations for improving technology integration in Saudi schools. Continuous professional development programs should be provided to improve teachers' technological and pedagogical skills. Schools should also strengthen technological infrastructure and improve online assessment systems to ensure fairness and academic integrity. In addition, teachers should receive practical guidance regarding the integration of digital technologies into communicative language learning activities.

Overall, the reviewed studies suggest that technology integration has strong potential to improve English language learning in Saudi Arabia. However, successful implementation depends heavily on teacher readiness, institutional support, infrastructure quality, and effective pedagogical practices.

Educational Implications

The findings of this review have several important implications for English language education in Saudi schools. First, the reviewed studies demonstrate that technology can support more interactive and student-centered learning environments. Therefore, schools should continue encouraging the integration of digital technologies into English language classrooms while ensuring that these technologies are used effectively for language learning purposes rather than only for presentation or administrative tasks.

Second, the literature highlights the importance of teacher preparation and professional development. Teachers require continuous training not only in technical skills but also in pedagogical strategies that support effective classroom implementation. Training programs should focus on practical classroom applications, digital assessment methods, classroom management in online environments, and the integration of technology into communicative language teaching practices.

Third, schools and educational institutions should improve technological infrastructure to support successful implementation. Reliable internet access, updated digital devices, and technical support services are essential for maintaining effective learning environments. Without sufficient infrastructure, technology integration may become inconsistent and less effective.

Finally, policymakers and curriculum designers should consider integrating technology more systematically into English language curricula. Technology should be viewed as a supportive educational tool that enhances student engagement, interaction, and language development. Future educational planning should also focus on balancing digital learning with traditional face-to-face instruction to create more effective blended learning environments in Saudi schools.

Limitations of the Review

Although this review provides a comprehensive overview of technology integration in English language learning in Saudi schools, several limitations should be acknowledged.

First, the review is based only on previously published studies conducted within Saudi educational contexts. Therefore, the findings may not fully represent all school environments or educational regions in the country.

Second, many of the reviewed studies relied primarily on questionnaires and perception-based data. While such studies provide valuable insights into teachers' and students' attitudes, they may not always reflect actual classroom practices or long-term learning outcomes. More classroom-based observational research and longitudinal studies are needed to better understand the real impact of technology integration on English language learning.

Third, some of the reviewed studies focused on specific technologies such as mobile applications or online learning platforms during the COVID-19 pandemic. As a result, the findings may reflect temporary educational conditions rather than stable long-term instructional practices.

Finally, the review focused mainly on English language classrooms in Saudi schools and did not include higher education contexts or international comparisons. Future research may benefit from comparing technology integration practices across different educational systems and learning environments.

Conclusion

Technology integration has become an increasingly important aspect of English language learning in Saudi schools. Recent studies demonstrate that digital technologies such as mobile applications, online learning platforms, ICT-supported instruction, educational games, and digital assessment systems can improve student engagement, increase motivation, and support interactive learning environments.

The reviewed literature also suggests that technology positively affects certain language skills, particularly vocabulary acquisition and reading comprehension. Online learning systems provide flexible learning opportunities and encourage learner independence.

However, the literature identifies several important challenges related to technology integration. Teacher training, technical infrastructure, assessment reliability, classroom management, and academic integrity remain major concerns affecting implementation in Saudi schools.

The findings of this review suggest that technology alone cannot guarantee successful language learning outcomes. Effective technology integration requires well-prepared

teachers, appropriate pedagogical strategies, strong institutional support, and reliable technological infrastructure.

Future research should focus on long-term language learning outcomes and classroom-based implementation practices. Researchers should also investigate how different forms of technology affect specific language skills such as speaking, writing, listening, and pronunciation.

Overall, technology integration has strong potential to improve English language education in Saudi Arabia. With continuous professional development, improved infrastructure, and effective pedagogical practices, digital technologies can continue enhancing English language learning experiences in Saudi schools.

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