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THE PREVALENCE AND PATTERNS OF TECHNOLOGY UTILIZATION IN ARABIC LANGUAGE INSTRUCTION AMONG TEACHERS

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ABSTRACT

This paper investigated the frequency and types of technology used in Arabic language instruction among teachers in the Province of Bukidnon. It also evaluates the impact on teaching effectiveness, analyzes the relationship between digital literacy and frequency of technology use, assesses educators' levels of digital literacy, and looks at patterns of technology integration, including purposes, modes, and attitudes toward adoption. Purposive sampling was used to choose 39 Arabic language instructors from the Province of Bukidnon for the study, which used a descriptive-correlational research methodology. Adapted questionnaires measuring technology use, digital literacy, attitudes toward technology adoption, and educational efficacy were used to collect data. Data analysis was conducted using statistical tools such as Pearson's r, weighted means, and frequency counts and percentages.

The results showed that basic technology tools, including computers, smartphones, and educational apps, are often utilized by Arabic language instructors, with Google Classroom and WhatsApp being the most popular platforms. Teachers' levels of digital literacy were generally moderate; there were notable differences in their technical proficiency. Though obstacles such as inadequate infrastructure, insufficient training, and a lack of institutional support prevented a more thorough integration, positive attitudes toward technology adoption were noted.

According to the study's findings, although educators have positive attitudes toward technology, its actual use is still mostly supplemental rather than revolutionary. The frequency of technology use and digital literacy are strongly correlated, suggesting the need for targeted professional development initiatives.

For educators, school administrators, curriculum designers, and legislators seeking to improve technology integration in Arabic language instruction, this study offers valuable insights.

Keyword: technology utilization, Arabic language instruction, digital literacy, teaching effectiveness, Province of Bukidnon.

1. INTRODUCTION

In the modern world of digitization, technologies, such as multimedia resources, language-learning applications, and online technologies, are playing an increasingly important role in educational practice, providing dynamic and interactive learning levels that make language acquisition and interaction more effective. Due to the rapid development of digital technologies, the conventional approaches of teaching have been transformed and provided teachers with new opportunities to enhance teaching and learning across various academic disciplines, one of them being language teaching.

Application of the technology to Arabic Language and Islamic Values Education (ALIVE) has become a topic of interest in the Philippine context, especially with the outbreak of COVID-19 that necessitated the transition to online learning. Educators have started to provide their lessons through applications like Google Classroom and WhatsApp. Nevertheless, there are problems with the poor preparation of teachers, the absence of locally-relevant digital content, and limited access to the internet (Abderrahmane, 2024; Sanni,

2024). Combined, these studies showcase the significance of interactions that dictate the success of technology delivery in the Arabic language instruction between pedagogical attitudes, availability of infrastructure, and instructor digital literacy.

Conceptual Frameworks of the Study

This study is anchored on two core theoretical frameworks, namely the Technological Pedagogical Content Knowledge (TPACK) model and Computer-Assisted Language Learning (CALL) theory, to examine how the integration of technological tools and pedagogical strategies influences student participation in Arabic language classroom activities.

The conceptual framework for this study, which emphasizes the interaction among teacher competency, digital tools, and learning outcomes, is grounded in well-established models of technology integration and theories of second language acquisition. The Technological Pedagogical Content Knowledge (TPACK) model, which emphasizes that effective technology integration occurs when educators combine pedagogical strategies, technology use, and knowledge of Arabic-language content to create dynamic and interactive learning environments, is central to this framework. This model's applicability to understanding technology integration among Arabic educators was confirmed by Nafilah et al.'s (2025) subsequent application in Arabic language education contexts.

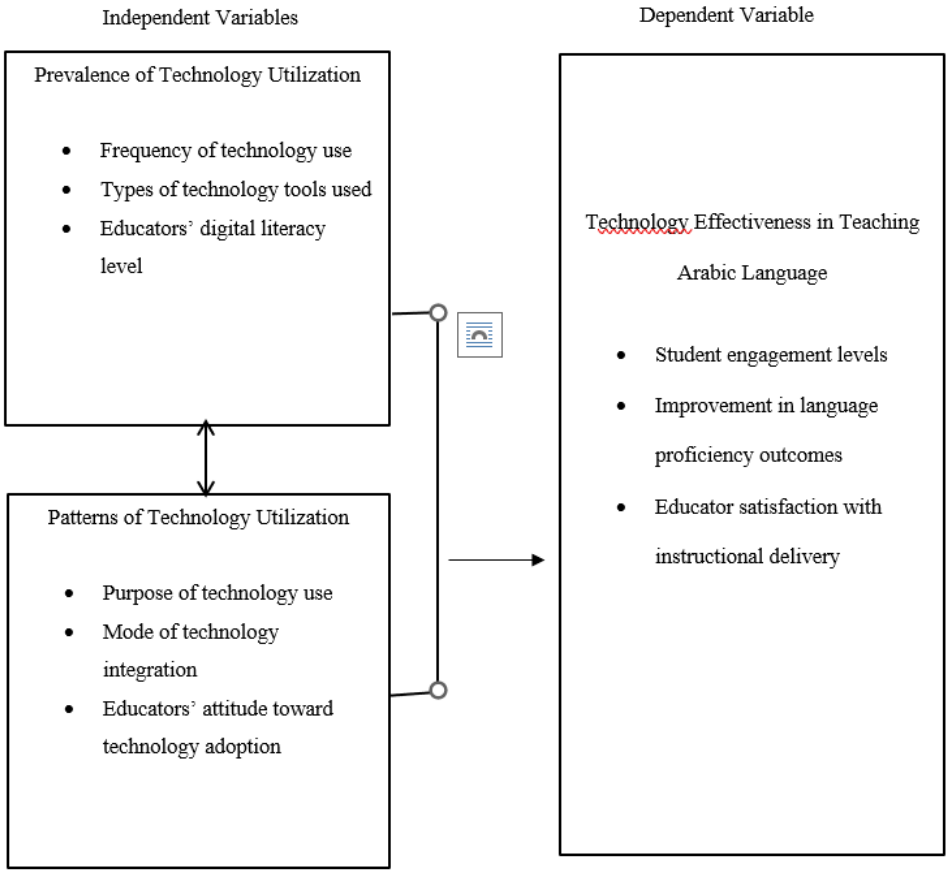

Figure 1:

Schematic diagram of the study showing the relationship between the independent and dependent variables of the study

The study adopts the null hypothesis: (1). There is no significant relationship between the level of technology utilization in instruction and the level of technology on effectiveness in teaching the Arabic Language. (2). There is no significant relationship between the level of the patterns of technology utilization and the level of technology on effectiveness in teaching the Arabic Language.

Scope

This study was delimited to investigating the prevalence and patterns of technology utilization, specifically in Arabic language instruction, among educators within the Province of Bukidnon, Philippines. The study excludes informal or non-formal Arabic learning environments and solely concentrates on official educational settings where Arabic is taught. Students' direct technological participation and opinions are not included in the study, which looks at technology use from the viewpoint of educators. It centers on three main dimensions of technology utilization: frequency of use, types of technology tools employed, and educators' digital literacy levels. Additionally, the patterns of technology integration considered include the purpose, mode, and attitudes toward technology use. Data gathered only for the academic year 2025–2026 can be used to evaluate the impact on teaching effectiveness, using variables such as student engagement, language proficiency outcomes, and educator satisfaction.

The following terms are to be understood:

Arabic Language Instruction. Arabic Language Instruction refers to the official instruction of Arabic language skills by teachers in the Province of Bukidnon's ALIVE (Arabic Language and Islamic Values Education) program, with a particular emphasis on the development of speaking, listening, reading, and writing skills.

Digital Literacy. Digital Literacy refers to the extent to which educators consider themselves proficient in using digital tools for teaching, such as computers, smartphones, and projectors; navigating software applications like Microsoft Office, Google Classroom, and educational apps; and effectively integrating technology into Arabic language instruction.

Institutional Support. Institutional Support refers to enhancing teachers' adoption of technological tools for Arabic language instruction. Schools in the Province of Bukidnon provide training programs, technical assistance, internet connectivity, instructional resources, and administrative encouragement.

Patterns of Technology Utilization. Patterns of Technology Utilization refers to the frequent ways in which teachers integrate technology into Arabic language instruction. This involves the frequency of use, the specific digital tools used, the purposes of integration (such as lesson delivery and student assessment), and the delivery methods (such as supplemental, blended, or fully online approaches).

Prevalence of Technology Utilization. Prevalence of Technology Utilization refers to the extent to which teachers use digital tools, software, and online platforms in Arabic language instruction. This is determined by how frequently computers, multimedia projectors, educational apps, Google Classroom, and WhatsApp are used for instructional purposes.

Student Engagement. Student Engagement refers to how teachers perceive their students' motivation, interest, and active participation in Arabic language learning activities when technology is used. It also includes significant changes in students' excitement, participation, and attentiveness during technology-enhanced instruction.

Teaching Effectiveness. Teaching Effectiveness refers to the perceived effects of technology use on Arabic language instruction, as determined by increases in student engagement, perceived improvements in learners' Arabic language proficiency in speaking, listening, reading, and writing, and teachers' general satisfaction with how they deliver their lessons.

Technology Utilization. Technology Utilization refers to the extent to which and the effectiveness with which educators use digital tools, software, and online platforms to enhance Arabic language instruction. This includes using devices comprising computers, laptops, smartphones, multimedia projectors, educational applications, learning management systems, and communication platforms.

Valencia City Context. Valencia City Context refers to the context of Valencia City, Malaybalay City, Province of Bukidnon, Philippines, where the ALIVE program is carried out, considering the socioeconomic circumstances of schools providing Arabic language instruction as well as the local educational infrastructure and technological resources.

2. REVIEW OF RELATED LITERATURE AND STUDIES

Prevalence of Technology Utilization

The integration of technology in Arabic language instruction has gained significant traction internationally and locally. Research indicates that Arabic educators are increasingly using digital platforms, AI apps, and multimedia resources. Anwar and Ahyarudin (2023) discussed the growing use of AI-driven learning programs such as ArabicPod101 and Duolingo to improve language proficiency across a variety of learner communities worldwide. Rosli Hady et al. (2025) found that technology integration significantly increased motivation in Indonesian Islamic boarding schools. According to Al-Jarf (2021),

Frequency of Technology Use

Frequency of technology use refers to how often educators and learners incorporate digital tools into the teaching and learning process. It is a critical metric for understanding the depth of integration. High frequency indicates habitual use, where technology becomes an integral part of daily life. Frequency is often associated with the durability of learning outcomes in language instruction.

Types of Technology Tools Used

Arabic language educators utilize a broad array of digital tools. Across contexts, AI-powered language applications, online educational platforms like Google Classroom, multimedia projectors, and interactive whiteboards are prevalent (Anwar et al., 2023).

Social media platforms such as Telegram and WhatsApp also facilitate learning and communication (Al-Shehri, 2020). Mobile apps are very useful for increasing student engagement, according to Zulkepli et al. (2024). To improve Arabic writing abilities, new AI writing aids, such as ChatGPT, have also been investigated recently (

Educators' Digital Literacy Level

Teachers' digital literacy varies but is increasingly recognized as critical for effective technology integration. Anwar and Ahyarudin (2023) and Syaikhudin and Laili (2024) underscored the need for continuous digital skills training to address existing gaps. Studies across the Middle East and Asia reveal moderate to low proficiency among Arabic instructors, particularly in TPACK frameworks and AI readiness, limiting the potential of tools like ChatGPT and VR in Saudi, Qatari, Kuwaiti, and Egyptian contexts (Alajmi, 2022; Alfadly, 2021; Alzahrani, 2023; Khan et al., 2024).

Patterns of Technology Utilization

Patterns of use range from supplemental applications to comprehensive integration into lesson plans. Many educators deploy technology to complement traditional teaching through multimedia content and interactive exercises (Al-Shehri, 2020).

Purpose of Technology Use

The purpose of incorporating technology centers on enhancing language skills (listening, speaking, reading, writing), motivating learners, enabling individualized instruction, and facilitating collaboration, providing access to authentic resources, supporting diverse learning styles, facilitating assessment and feedback, and extending learning beyond classrooms with flexible pacing (Abu-Qtaish, 2024; Abou Adel, 2022). Al-Jarf (2021) reported that digital tools also support authentic access to resources and assessment and accommodate diverse learning styles.

Mode of Technology Integration

Modes of integration differ widely, from technology as an essential core in lesson design to technology as supplementary or to facilitate asynchronous and remote learning. While fully online instruction remains less common, it is increasing, shaped significantly by pandemic-driven shifts (Alsowat, 2022; Rosli Hady et al., 2025). Educators report tailoring technology deployment to lesson objectives, infrastructural realities, and learner needs (Mohideen, 2024).

3. RESEARCH METHODOLOGY

A structured survey questionnaire was the primary method used in this study to collect data for the descriptive type of research. The information was obtained using the questionnaire in the actual survey. This study employed the descriptive-correlational type of research. Purposive sampling was used in selecting the respondents of the study. The respondents of the study were. The respondents of the study were Arabic language educators from the Province of Bukidnon a total of thirty-nine (39) total of 286 purposively identified Arabic teachers. A 5-point Likert scale was used. The study was conducted in 21 schools implementing the Madrasah Education

Program, located in Valencia City, Malaybalay City and various municipalities across the Province of the Bukidnon, The research focused on ALIVE teachers from these schools, specifically under the Division of Valencia City including Sinalayan Integrated School (SIS), Valencia City Central School (VCCS), and Valencia National High School (VNHS), Division of Malaybalay City including Malaybalay City Central School (MCCS), Barangay 9 Elementary School (B9ES), BCT Elementary School (BCTES) and Division of Bukidnon including Apolan Elementary School (AES), Basak Elementary School (BES), Dagumbaan Integrated School (DIS), Kalilangan Central Elementary School (KCES), Kidama Elementary School (KES), Lantud Elementary School (LES), Maramag Central Elementary School (MCES), Omonay Elementary School (OES), Pasayanon Elementary School (PES), Pamotolon Elementary School (PES), Pagompong Elementary School (PES), Potaon Academy (PA), Quezon Central Elementary School (QCES), Talakag Central Elementary School (TCES), Taponan Elementary School (TES).

4. FINDINGS

An Analysis of Technology Utilization in Instruction Among Teachers in Teaching Arabic Language in terms of Frequency of Technology Use, The means of the indicators range from 3.7179 to 3.8974, all interpreted as 'Often,' indicating that teachers frequently integrate technology into their instructional practices. In terms of specific indicators, the statement "I prefer using technology to traditional teaching methods in Arabic language" had the highest mean score (M = 3.8974, SD = 0.91176), indicating *"Often*."

Table 2

Technology Utilization in Instruction Among Teachers in Teaching Arabic Language in terms of Frequency of Technology Use

Indicators of Frequency of Technology Use	Mean	SD	Interpretation
1. I regularly use digital tools during my Arabic language lessons.	3.82	0.76	Often
2. I incorporate technology in more than half of my instructional time.	3.72	0.76	Often
3. I use technology at least once a week when teaching Arabic.	3.85	0.84	Often
4. I frequently update myself on new technology tools for Arabic teaching.	3.87	0.98	Often
5. My use of technology has increased over the past year.	3.87	0.89	Often
6. I use digital technology daily during Arabic instruction.	3.85	0.81	Often
7. Technology use is integrated into my Arabic lessons consistently.	3.87	0.89	Often
8. I spend sufficient time preparing technology-based lesson materials.	3.74	0.91	Often
9. I frequently use online platforms or apps in Arabic teaching.	3.87	1.00	Often
10. I prefer using technology to traditional teaching methods in Arabic language.	3.90	0.91	Often
Overall Mean	3.83	0.87	Often

Table 3 presents the level of technology utilization in instruction among Arabic teachers, by the types of technology tools used, the indicator "I integrate digital storytelling or creative apps in

Arabic instruction" had the highest mean score (M = 3.7179, SD = 0.97194), indicating *"Often*." Another relatively high mean score was observed in the indicator "I use social media platforms (e.g., WhatsApp, Telegram) for communication and learning" (M = 3.6923, SD = 0.95018). This implies that teachers frequently use social media to support communication and collaborative learning among students.

Table 3

Technology Utilization in Instruction Among Teachers in Teaching Arabic Language in terms of Types of Technology Tools Used

Indicators of Types of Technology Tools Used	Mean	SD	Interpretation
1. I use multimedia projectors in my Arabic language classes.	3.67	1.03	Often
2. I incorporate language learning apps (e.g., Duolingo, Memrise) during lessons.	3.49	1.05	Often
3. I use video conferencing tools (e.g., Zoom, Google Meet) for Arabic instruction.	3.41	0.97	Often
4. I use social media platforms (e.g., WhatsApp, Telegram) for communication and learning.	3.69	0.95	Often
5. I utilize online educational platforms (e.g., Google Classroom) in teaching Arabic.	3.62	0.96	Often
6. I use interactive whiteboards or smartboards for Arabic lessons.	3.64	0.84	Often
7. I present multimedia content (audio, video) related to the Arabic language during lessons.	3.54	0.94	Often
8. I use digital quizzes or assessment tools to evaluate Arabic language skills.	3.62	0.99	Often
9. I integrate digital storytelling or creative apps in Arabic instruction.	3.72	0.97	Often
10. I use computer software specifically designed for Arabic language teaching.	3.62	1.07	Often
Overall Mean	3.83	0.87	Often

Table 4 Another relatively high mean score was observed in the indicator "I use social media platforms (e.g., WhatsApp, Telegram) for communication and learning" (M = 3.6923, SD = 0.95018). This finding implies that teachers possess the digital literacy needed to use social media platforms effectively for educational purposes

The indicator "I use video conferencing tools (e.g., Zoom, Google Meet) for Arabic instruction" had the lowest mean score (M = 3.4103, SD = 0.96567), although it still falls within the "*Often*" range. Overall, the results indicate that teachers often demonstrate digital literacy skills in their use of technology for Arabic language teaching. This suggests that educators can navigate digital platforms, multimedia tools, and educational applications to support effective instruction.

Table 4

Technology Utilization in Instruction Among Teachers in Teaching Arabic Language in terms of Educators' Digital Literacy Level

Indicators of Educators' Digital Literacy Level	Mean	SD	Interpretation
1. I use multimedia projectors in my Arabic language classes.	3.67	1.03	Often
2. I incorporate language learning apps (e.g., Duolingo, Memrise) during lessons.	3.49	1.05	Often
3. I use video conferencing tools (e.g., Zoom, Google Meet) for Arabic instruction.	3.41	0.97	Often
4. I use social media platforms (e.g., WhatsApp, Telegram) for communication and learning.	3.69	0.95	Often
5. I utilize online educational platforms (e.g., Google Classroom) in teaching Arabic.	3.62	0.96	Often
6. I use interactive whiteboards or smartboards for Arabic lessons.	3.64	0.84253	Often
7. I present multimedia content (audio, video) related to Arabic language during lessons.	3.54	0.94	Often
8. I use digital quizzes or assessment tools to evaluate Arabic language skills.	3.62	0.99	Often
9. I integrate digital storytelling or creative apps in Arabic instruction.	3.7179	0.97	Often
10. I use computer software specifically designed for Arabic language teaching.	3.6154	1.07	Often
Overall Mean	3.64	0.97	Often

Table 5

Level of Technology Utilization in Teaching Arabic Language

Area of Technology Utilization	Overall Mean	SD	Interpretation	Key Insight
Frequency of Technology Use	3.83	0.87	Often	Teachers frequently integrate technology into Arabic language instruction and prefer digital tools as part of teaching practices.

Types of Technology Tools Used	3.83	0.87	Often	Various tools such as multimedia projectors, social media, apps, and digital storytelling platforms are regularly utilized.
Educators' Digital Literacy Level	3.64	0.97	Often	Teachers demonstrate adequate digital literacy and competence in operating technological tools for instructional delivery.

Table 6

Level of the Use of Patterns of Technology Utilization in Teaching Arabic Language in Terms of Purpose of Technology Use

Indicators of Purpose of Technology Use	Mean	SD	Interpretation
1. I use technology primarily to improve students' language skills (listening, speaking, reading, writing).	3.79	0.98	Often
2. Technology helps me provide individualized learning to my Arabic students.	3.79	0.89	Often
3.I use technology to motivate and engage students during Arabic lessons.	3.95	0.83	Often
4.Technology is used to facilitate communication and collaboration among students.	3.79	0.73	Often
5.I use technology to supplement and reinforce traditional Arabic teaching methods	3.74	0.10	Often
6.I apply technology to provide authentic Arabic language resources	3.69	0.92	Often
7.Technology is mainly used for assessment and feedback purposes.	3.82	0.91	Often
8. I use technology to accommodate diverse learning styles in my Arabic class.	3.72	1.12	Often
9.I use technology to keep track of student progress and performance.	3.59	1.04	Often
10.Technology use in my class is intended to increase student interaction.	3.62	0.94	Often
Overall Mean	3.75	0.94	Often

The table 7 table shows an overall mean of 3.74 with a standard deviation of 0.97, interpreted as 'Often,' indicating that teachers frequently integrate technology into their Arabic language teaching practices across different instructional modes.

Table 7

Level of the Use of Patterns of Technology Utilization in Teaching Arabic Language in Terms of Mode of Technology Integration

Indicators of Mode of Technology Integration	Mean	SD	Interpretation
1.I integrate technology as an essential part of my Arabic lesson plans.	3.74	0.10	Often
2.Technology is used mostly as a supplementary tool in Arabic teaching.	3.79	0.89	Often
3.Technology is used mostly as a supplementary tool in Arabic teaching.	3.72	0.92	Often
4. I conduct fully online Arabic lessons using technological platforms.	3.62	1.07	Often
5.Technology is embedded in collaborative learning activities in my classes.	3.77	0.93	Often
6.I customize my technology use depending on lesson objectives.	3.77	0.99	Often
7.Technology use varies depending on available resources and infrastructure.	3.72	0.97	Often
8.I routinely incorporate interactive exercises with technology during lessons	3.77	0.99	Often
9.My technology use includes asynchronous learning (students use tools at their own pace	3.62	0.96	Often
10.I encourage students to use technology for language practice outside of class.	3.85	0.93	Often
Overall Mean	3.74	0.97	Often

Among the indicators, the statements "I think technology makes Arabic learning more engaging and fun for students" and "I believe that using technology can reduce traditional teaching workload" both had the highest mean score of 4.03, interpreted as "Often."

Table 8

Level of the Use of Patterns of Technology Utilization in Teaching Arabic Language in Terms of Educators' Attitude Toward Technology Adoption

Indicators of Educators' Attitude Toward Technology Adoption	Mean	SD	Interpretation
1.I believe technology enhances the quality of Arabic language instruction.	4.00	0.83	Often
2.I am open to experimenting with new technology tools in my teaching.	3.92	0.88	Often
3.I feel motivated to improve my technological skills for Arabic teaching.	3.79	0.86	Often
4.I think technology makes Arabic learning more engaging and fun for students.	4.03	0.84	Often
5.I consider technology integration to be essential for modern language learning. |	3.79	0.83	Often
6.I am willing to spend time learning new technology tools even if it requires effort.	3.85	0.87	Often
7.I feel confident in overcoming challenges related to technology use.	3.85	0.90	Often
8.I believe that using technology can reduce traditional teaching workload.	4.03	0.93	Often
9.I am concerned about potential technical problems hindering Arabic instruction.	3.92	0.93	Often
10.I believe training and support from my school would encourage more technology use.	3.92	0.98	Often
Overall Mean	3.91	0.89	Often

Table 9 presents the overall level of technology use in teaching Arabic in terms of the purpose of technology use, mode of technology integration, and educators' attitude toward technology adoption. The findings reveal that all three dimensions obtained mean scores interpreted as "Often." Specifically, educators' attitude toward technology adoption had the highest overall mean (M = 3.91, SD = 0.89), followed by the purpose of technology use (M = 3.75, SD = 0.94) and the mode of technology integration (M = 3.74, SD = 0.97

Table 9

Level of the Use of Patterns of Technology Utilization in Teaching Arabic Language

Area of Technology Utilization	Overall Mean	SD	Interpretation	Key Insight
Purpose of Technology Use	3.75	0.94	Often	Teachers frequently use technology to motivate students, improve language skills, support individualized learning, and facilitate communication and assessment.
Mode of Technology Integration	3.74	0.97	Often	Technology is commonly integrated through supplementary instruction, collaborative activities, lesson planning, and independent learning tasks.
Educators' Attitude Toward Technology Adoption	3.91	0.89	Often	Teachers generally show a positive attitude toward adopting technology and recognize its value in improving Arabic language instruction.

Table 10 presents the level of technology used in teaching Arabic in terms of student engagement. The results indicate that all 10 indicators achieved high mean scores, ranging from 3.79 to 4.00, reflecting strong agreement among educators on the positive influence of technology on student engagement. The overall mean of 3.87 and a standard deviation of 0.82 indicate that teachers generally observe increased student engagement when technology is integrated into Arabic instruction.

Table 10

Level of the Use of Patterns of Technology Utilization in Teaching Arabic Language in Terms of Student Engagement Levels

Indicators of Student Engagement Levels	Mean	SD	Interpretation
1. Students show higher participation when technology is used in Arabic lessons	3.85	0.78	Often
2.Technology increases students' interest in learning Arabic.	3.85	0.78	Often
3.Students are more motivated to complete tasks involving digital tools.	3.87	0.77	Often
4.Technology-based activities promote sustained attention among learners.	4.00	0.79	Often
5.I observe more student collaboration during technology-enhanced lessons.	3.90	0.79	Often
6.Technology encourages shy students to participate more actively.	3.87	0.89	Often

Indicators of Student Engagement Levels	Mean	SD	Interpretation
7.Students appreciate the variety provided by technology in learning exercises.	3.82	0.79	Often
8.Technology use reduces boredom in Arabic classes.	3.80	0.86	Often
9.I receive positive feedback from students about technology use in lessons.	3.92	0.90	Often
10. Technology promotes a more student-centered classroom environment.	3.82	0.82	Often
Overall Mean	3.87	0.82	Often

Table 11 presents the extent of technology use in teaching Arabic in relation to improvements in language proficiency outcomes. The results show mean scores ranging from 3.7179 to 3.8974, with standard deviations ranging from 0.72361 to 0.90433. Based on the descriptive scale provided, all indicators fall within the "Often" category, indicating that technology is used approximately 4 out of 5 occasions to support language proficiency outcomes. The overall mean of 3.88 and the standard deviation of 0.86 further suggest that teachers frequently integrate technology to improve students' Arabic language learning.

Table 11

Level of the Use of Patterns of Technology Utilization in Teaching Arabic Language in Terms of Improvement in Language Proficiency Outcomes

Indicators of Improvement in Language Proficiency Outcomes	Mean	SD	Interpretation
1.Using technology has improved my students' Arabic listening skills. |	3.90	0.85	Often
2.Technology use has contributed to better writing proficiency among learners.	3.74	0.88	Often
3.Students' speaking and pronunciation have improved through technology tools.	3.72	0.83	Often
4.Technology supports learners in memorizing vocabulary and grammar rules.	3.72	0.83	Often
5.Technology allows for immediate feedback, aiding language acquisition. |	3.82	0.88	Often
6.I have observed measurable improvement in students' language test scores when technology is used.	3.85	0.90	Often
7.Technology use helps students practice Arabic outside of the classroom.	3.85	0.78	Often
8.I use technology to personalize instruction according to student proficiency levels.	3.74	0.75	Often
9.Students develop better language comprehension with multimedia learning aids.	3.80	0.77	Often

Indicators of Improvement in Language Proficiency Outcomes	Mean	SD	Interpretation
10.The integration of technology has positively affected overall language learning outcomes.	3.72	0.72	Often
Overall Mean	3.88	0.86	Often

Table 12 presents the level of technology use in teaching Arabic, as measured by educators' satisfaction with instructional delivery. The results show mean scores ranging from 3.7179 to 3.8974, with standard deviations ranging from 0.72361 to 0.90433. Based on the descriptive scale, all indicators fall within the "Often" category, indicating that educators frequently experience satisfaction when using technology in their instructional delivery. The overall mean of 3.81, with a standard deviation of 0.82, suggests that teachers are generally satisfied with the integration of technology into Arabic language instruction, as it supports effective and engaging instructional practices.

Table 12

Level of the Use of Patterns of Technology Utilization in Teaching Arabic Language in Terms of Educator Satisfaction with Instructional Delivery

Indicators of Educator Satisfaction with Instructional Delivery	Mean	SD	Interpretation
1.Using technology has improved my students' Arabic listening skills. |	3.90	0.85	Often
2.Technology use has contributed to better writing proficiency among learners.	3.74	0.88	Often
3.Students' speaking and pronunciation have improved through technology tools.	3.71	0.82	Often
4.Technology supports learners in memorizing vocabulary and grammar rules.	3.71	0.83	Often
5.Technology allows for immediate feedback, aiding language acquisition. |	3.82	0.88	Often
6.I have observed measurable improvement in students' language test scores when technology is used.	3.85	0.90	Often
7.Technology use helps students practice Arabic outside of the classroom.	3.85	0.78	Often
8.I use technology to personalize instruction according to student proficiency levels.	3.74	0.75	Often
9.Students develop better language comprehension with multimedia learning aids.	3.80	0.77	Often
10.The integration of technology has positively affected overall language learning outcomes.	3.72	0.72	Often
Overall Mean	3.81	0.82	Often

Table 13 presents the level of technology utilization in teaching Arabic language across three aspects: student engagement, improvement in language proficiency outcomes, and educator satisfaction with instructional delivery. The data were collected using a 5-point Likert scale, where higher values indicate more frequent use of technology in instructional practices. The overall means for the three aspects range from 3.81 to 3.88, placing them in the "Often" category. This suggests that teachers regularly integrate technology into their Arabic lessons.

Table 13

Level of the Use of Patterns of Technology Utilization in Teaching Arabic Language

Aspect of Technology Utilization	Overall Mean	SD	Interpretation
Student Engagement	3.87	0.82	Often
Improvement in Language Proficiency Outcomes	3.88	0.86	Often
Educator Satisfaction with Instructional Delivery	3.81	0.82	Often

The computed p-value shown in the table is less than the 0.05 level of significance. Since the obtained p-value is lower than the set level of significance, the null hypothesis stating that there is no significant relationship between the level of technology utilization in instruction and the level of technology effectiveness in teaching Arabic Language was rejected. This indicates that the relationship between the two variables is statistically significant.

Table 14

Test of Relationship Between the Level of Technology Utilization in Instruction and the Level of Technology Effectiveness in Teaching Arabic Language

Variables	r	p-value	Decision on Ho	Interpretation
Level of Technology Utilization in Instruction and Level of Technology Effectiveness in Teaching Arabic Language	.***	< .05	Rejected	Significant Relationship

The result yielded a p-value lower than the 0.05 level of significance.Since the computed p-value is less than the 0.05 level of significance, the null hypothesis stating that there is no significant relationship between the level of patterns of technology utilization and the level of technology effectiveness in teaching Arabic Language was rejected. This indicates that the relationship observed between the variables is statistically significant.

Table 15

Test of Relationship Between the Level of Patterns of Technology Utilization and the Level of Technology Effectiveness in Teaching Arabic Language

Variables	r	p-value	Decision on Ho	Interpretation
Patterns of Technology Utilization and Technology Effectiveness in Teaching Arabic Language	.***	< .05	Rejected	Significant Relationship

Note. Relationship is significant at the 0.05 level of significance (two-tailed).

5. CONCLUSION AND RECOMMENDATION

Based on the findings, it can be concluded that the effectiveness of technology in Arabic language teaching is positively correlated with both the extent and the patterns of technology utilization. The integration of technology enhances students' motivation, facilitates understanding of lesson content, and strengthens teachers' instructional performance. These conclusions highlight the

pivotal role of technology in modern language education and the need for ongoing professional support for teachers to maximize its potential. It is recommended that schools and educational institutions may provide adequate support through infrastructure, access to digital tools, and institutional policies that promote effective technology integration. This includes ensuring stable internet connectivity, availability of hardware and software, and time for teachers to plan and implement technology-enhanced lessons. By fostering an environment that supports both frequent and strategic use of technology, schools can maximize their effectiveness in teaching Arabic Language and improve overall educational quality.

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