

EVALUATING THE PEDAGOGICAL EFFECTIVENESS OF INSTRUCTIONAL MEDIA IN ARABIC LANGUAGE EDUCATION: EVIDENCE FROM EIGHTH-GRADE ARABIC SCHOOLS IN BRUNEI DARUSSALAM

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Abstract

This study evaluates the availability and pedagogical utilization of instructional media in teaching Arabic in Grade Eight Arabic schools in Brunei Darussalam. Grounded in contemporary perspectives on communicative language teaching and technology-enhanced language learning, the research seeks to examine the extent to which instructional resources support the development of Arabic language skills among students. A mixed-methods research design was employed in order to obtain a comprehensive understanding of instructional practices. Quantitative data were collected through a structured questionnaire administered to 200 Grade Eight students using a five-point Likert scale, while qualitative insights were obtained through semi-structured interviews with fifteen Arabic language teachers, classroom observations, and document analysis. The findings reveal that instructional media are generally available at a moderate to high level across the examined schools, with weighted percentages exceeding seventy percent in most dimensions. Audio materials, multimedia resources, digital tools, and language laboratories appear to be relatively accessible and contribute significantly to enhancing listening and reading skills. However, the study also identifies notable disparities in the pedagogical integration of these resources. In particular, instructional media are less frequently employed in developing speaking and writing competencies. Qualitative evidence suggests that these limitations are associated with variations in technological infrastructure, limited teacher training in digital pedagogy, and institutional constraints. The study concludes that strengthening teachers' technological and pedagogical competencies, alongside expanding multimedia learning resources, is essential for improving the effectiveness of Arabic language education and promoting balanced development of the four language skills.

Keywords: Instructional Media; Arabic Language Teaching; Technology-Enhanced Language Learning; Communicative Language Education; Arabic Schools in Brunei Darussalam.

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1. Introduction

In contemporary second language pedagogy, instructional media have emerged as a pivotal component in facilitating effective language learning environments. Modern theories of language education emphasize that learners acquire linguistic competence more successfully when they are exposed to multimodal input that integrates auditory, visual, and interactive resources (Richards & Rodgers, 2014, p. 98; Mayer, 2009, p. 65). Within the field of teaching Arabic as a foreign language, instructional media play a particularly significant role in supporting the development of communicative competence, as they provide contextualized linguistic input and authentic communicative models that enhance comprehension and learner engagement (Canale & Swain, 1980, p. 6; Littlewood, 2004, p. 324). Furthermore, digital and multimedia technologies have increasingly transformed language classrooms by enabling interactive learning environments, promoting learner autonomy, and expanding opportunities for authentic exposure to the target language (Chapelle, 2009, p. 746; Godwin-Jones, 2018, p. 9).

Despite these pedagogical advancements, the effective integration of instructional media into language teaching practices remains uneven across educational contexts. Research indicates that the presence of technological resources alone does not guarantee meaningful pedagogical application, as successful integration depends largely on teacher competence, institutional infrastructure, and pedagogical design (Mishra & Koehler, 2006, p. 1023; Ertmer & Ottenbreit-Leftwich, 2010, p. 260). Within the context of Arabic schools in Brunei Darussalam, systematic empirical investigations into the availability and utilization of instructional media remain relatively limited. Consequently, evaluating the extent to which instructional media support the teaching of Arabic in Grade Eight classrooms is essential for informing curriculum development and improving pedagogical practice in Arabic language education.

2. Theoretical framework and Literature Review

The theoretical framework of this study is grounded in communicative language teaching, second language acquisition, and multimedia learning theory. Communicative language teaching posits that language education should foster meaningful interaction and the functional use of language rather than mere formal knowledge, thereby making instructional media essential for developing communicative competence (Canale & Swain, 1980, p. 6; Littlewood, 2004, p. 324). From the perspective of second language acquisition, comprehensible input constitutes a fundamental condition for language development, particularly through auditory and contextualized exposure, which instructional media can effectively provide (Krashen, 1985, p. 2; Vandergrift & Goh, 2012, p. 45). Multimedia learning theory further explains that the combination of verbal and visual channels enhances comprehension, retention, and learner engagement (Mayer, 2009, p. 65).

The literature consistently affirms that instructional media enrich foreign language classrooms by supporting listening, reading, speaking, and writing development, while also promoting learner autonomy and motivation (Richards & Rodgers, 2014, p. 98; Nation & Macalister, 2010, p. 67; Hyland, 2019, p. 154). Nevertheless, previous studies also demonstrate that the availability of technology alone does not ensure pedagogical effectiveness, as integration depends on teacher competence, infrastructural adequacy, and sound instructional design (Mishra & Koehler, 2006, p. 1023; Ertmer & Ottenbreit-Leftwich, 2010, p. 260).

3. Research Methodology

This study adopted a mixed-methods research design integrating quantitative and qualitative approaches in order to obtain a comprehensive evaluation of instructional media used in teaching Arabic in Grade Eight Arabic schools in Brunei Darussalam. Mixed-methods inquiry is widely recommended in educational research because it enables the triangulation of numerical trends with contextual explanations, thereby strengthening the validity and interpretive depth of findings (Creswell & Plano Clark, 2018, p. 215; Tashakkori & Teddlie, 2010, p. 137).

The quantitative component involved a structured questionnaire administered to 200 Grade Eight students, designed to measure students' perceptions of the availability and pedagogical use of instructional media. Responses were collected using a five-point Likert scale and analyzed through

weighted mean percentages in order to determine the degree of instructional media integration in classroom practice (Brown, 2007, p. 287).

To complement the statistical findings, qualitative data were obtained through semi-structured interviews with fifteen Arabic language teachers, classroom observations, and document analysis of instructional materials. Such triangulation provides a richer understanding of pedagogical practices and contextual factors influencing technology integration (Chapelle, 2009, p. 746; Ertmer & Ottenbreit-Leftwich, 2010, p. 260).

The combination of these data sources enabled a systematic evaluation of both the availability and the pedagogical utilization of instructional media in Arabic language education within the studied context.

4. Results and Discussion

4.1. Overall Availability of Instructional Media in Arabic Language Teaching

The quantitative findings derived from the responses of 200 Grade Eight students indicate that Arabic schools in Brunei Darussalam generally demonstrate a moderate to high level of provision of instructional media used in teaching Arabic as a foreign language. The weighted mean percentage for the availability of diverse instructional media reached 75.8%, indicating that the majority of students perceived that their schools provide a variety of teaching aids to support Arabic language learning. The calculation produced a total weighted score of 758 out of 1000, yielding a percentage value of 75.8%.

This result suggests that instructional media are relatively available and accessible in Arabic classrooms. Such a finding aligns with contemporary perspectives in second language pedagogy that emphasize the role of multimodal instructional resources in facilitating meaningful language acquisition (Richards & Rodgers, 2014, p. 98; Nation & Macalister, 2010, p. 67). Instructional media provide contextualized input, support comprehension, and promote interactive learning environments, which are essential for developing communicative competence in foreign language contexts (Canale & Swain, 1980, p. 6; Littlewood, 2004, p. 324).

However, the remaining 24.2% indicates that a non-negligible proportion of students perceive limitations in the diversity of instructional media. This observation suggests disparities in resource distribution across schools or inconsistent integration of available teaching aids into classroom practice.

Qualitative evidence obtained from semi-structured interviews with fifteen Arabic language teachers further corroborates this finding. Several teachers reported that although schools provide some instructional resources—such as projectors, audio recordings, and printed visual materials—the extent of utilization varies depending on teacher training and technological readiness.

One teacher explained:

Most classrooms are equipped with projectors and audio materials, but effective use depends largely on teachers' pedagogical skills and time constraints."

This observation supports previous studies suggesting that the mere availability of educational technology does not guarantee its effective pedagogical integration (Mishra & Koehler, 2006, p. 1023; Ertmer & Ottenbreit-Leftwich, 2010, p. 260).

4.2. Availability of Audio Instructional Media

The findings further indicate that audio instructional media—such as recorded dialogues, listening exercises, and digital sound materials—are available at a relatively high level, with a weighted percentage of 76.5%.

The weighted score reached 765 out of 1000, indicating that a majority of students acknowledged the presence of audio-based learning tools. This result is pedagogically significant because listening input constitutes a foundational component in second language acquisition theories (Krashen, 1985, p. 2; Vandergrift & Goh, 2012, p. 45).

From a theoretical perspective, auditory input facilitates the development of phonological awareness, pronunciation accuracy, and comprehension skills, particularly for learners of Arabic whose native language differs phonologically from Arabic (Celce-Murcia et al., 2010, p. 312).

Interview data confirmed that teachers frequently rely on audio materials when teaching listening comprehension. Several teachers highlighted the importance of recorded dialogues and Qur'anic recitation exercises in improving students' listening abilities. One teacher stated:

"Listening materials help students recognize authentic Arabic pronunciation, especially when they hear native speakers."

Nevertheless, 23.5% of students indicated limited availability or inconsistent use of audio media. Teachers attributed this limitation to technical issues, limited classroom time, and insufficient training in digital audio tools.

These findings echo earlier studies emphasizing that technology-supported listening instruction requires not only resources but also pedagogical competence (Vandergrift & Goh, 2012, p. 86; Chapelle, 2009, p. 743).

4.3. Availability of Audio-Visual Instructional Media

The analysis also examined the availability of audio-visual instructional media, including educational videos, multimedia presentations, and digital learning platforms. The results revealed a weighted percentage of 72.5%, indicating moderate availability.

While a significant proportion of students acknowledged the presence of such tools, the relatively higher percentage of neutral responses (38.2%) suggests that students may experience inconsistent exposure to multimedia learning environments.

Multimedia learning theory suggests that combining visual and auditory input enhances comprehension and retention by activating multiple cognitive channels (Mayer, 2009, p. 65). In foreign language learning contexts, audio-visual materials are particularly valuable because they provide contextual cues that facilitate comprehension and cultural understanding (Gilmore, 2007, p. 97).

Classroom observations conducted during this study revealed that multimedia resources were typically used during vocabulary presentations and listening comprehension activities. However, their use in interactive communicative activities appeared limited.

Several teachers explained that the integration of multimedia tools often depends on internet connectivity and classroom equipment availability, which may vary across schools.

4.4. Availability of Digital and Online Instructional Media

Another dimension investigated in this study concerns the availability of electronic and internet-based instructional media. The findings revealed a weighted percentage of 73.4%, suggesting that digital tools are moderately integrated into Arabic language teaching.

Digital instructional media may include:

- Online learning platforms
- Language learning applications
- Digital dictionaries
- Multimedia language software

The integration of digital technologies into language teaching has been widely recognized as an effective strategy for enhancing student engagement and promoting autonomous learning (Chapelle, 2009, p. 746; Godwin-Jones, 2018, p. 9).

Teachers interviewed during this study reported that some schools use Google Classroom, online video platforms, and interactive quizzes to support language instruction. However, they also noted that the systematic integration of digital learning resources remains limited.

One teacher commented:

“Digital tools are available, but many teachers still rely mainly on traditional methods.”

This observation reflects findings from previous research indicating that technological integration in language classrooms often progresses more slowly than technological availability (Ertmer & Ottenbreit-Leftwich, 2010, p. 263).

4.5. Availability of Language Laboratories

The results also revealed that language laboratories are available in many Arabic schools, with a weighted percentage of 75.2%.

Language laboratories provide a structured environment for practicing listening and speaking skills using specialized audio equipment and interactive exercises. Their pedagogical value has long been recognized in foreign language instruction (Brown, 2007, p. 287).

Interview data indicated that language laboratories are primarily used for:

- listening comprehension exercises
- pronunciation training
- oral practice sessions

However, classroom observations suggested that not all schools use language laboratories regularly. Some teachers explained that scheduling constraints and limited technical support sometimes restrict their use.

4.6. Instructional Media and Listening Skill Development

The results demonstrate that the use of instructional media in developing listening skills reached a weighted percentage of 74.7%.

Listening is widely considered the most fundamental skill in language acquisition because it provides the primary source of linguistic input (Krashen, 1985, p. 4). The relatively high percentage suggests that instructional media are effectively used to support listening activities.

Teachers reported using:

- Recorded dialogues
- Video clips
- Pronunciation exercises

These tools help students improve their ability to recognize spoken Arabic and understand authentic speech patterns.

4.7. Instructional Media and Reading Skill Development

The weighted percentage for the use of instructional media in reading instruction reached 72.5%, indicating moderate integration.

Teachers often employ visual materials, digital texts, and projected reading passages to support comprehension. Such resources facilitate vocabulary acquisition and contextual understanding (Nation, 2001, p. 73).

However, the relatively high neutral response rate suggests that reading instruction still relies heavily on printed textbooks rather than interactive digital reading platforms.

4.8. Instructional Media and Speaking Skill Development

The analysis revealed that the use of instructional media to support speaking skills reached 69.4%, representing the lowest percentage among the four language skills.

This finding suggests that although instructional media are available, they may not be used extensively in activities designed to promote oral communication.

Communicative language teaching theory emphasizes the importance of interactive speaking activities for developing communicative competence (Littlewood, 2004, p. 323). However, classroom observations indicated that speaking practice often remains limited due to:

- Large class sizes
- Time constraints
- Emphasis on written examinations.

4.9. Instructional Media and Writing Skill Development

Similarly, the use of instructional media to support writing instruction reached 69.1%, indicating moderate implementation.

Teachers reported using digital tools such as word processors and interactive exercises, but these tools were not systematically integrated into writing instruction.

Research suggests that digital writing platforms can significantly improve students' writing skills by providing opportunities for revision, collaboration, and feedback (Hyland, 2019, p. 154).

Integrated Interpretation of Quantitative and Qualitative Findings

The triangulation of survey data, teacher interviews, classroom observations, and document analysis provides a comprehensive understanding of instructional media usage in Arabic language teaching.

Overall, the findings indicate that Arabic schools in Brunei Darussalam have made considerable progress in providing instructional media, particularly in the areas of listening and multimedia resources. However, several challenges remain, including:

- uneven distribution of technological resources
- limited teacher training in digital pedagogy
- insufficient integration of technology into communicative language activities.

These findings are consistent with previous research on technology integration in language education (Chapelle, 2009, p. 748; Godwin-Jones, 2018, p. 12).

4.10. Conclusion of the Analytical Section

In summary, the study demonstrates that instructional media play a significant role in supporting Arabic language learning in Grade Eight Arabic schools in Brunei Darussalam. While the availability of such media is generally high, their pedagogical integration remains uneven.

Future curriculum development initiatives should therefore focus on:

- Enhancing teacher training in educational technology
- Expanding multimedia learning resources
- Integrating instructional media more effectively into communicative language teaching practices.

5. Conclusion

This study set out to evaluate the availability and pedagogical utilization of instructional media in teaching Arabic in Grade Eight Arabic schools in Brunei Darussalam. The findings demonstrate that instructional media are generally available at a moderate to high level across the studied institutions, with overall weighted percentages exceeding seventy percent in most dimensions. Such results indicate that schools have made meaningful progress in providing diverse instructional resources, including audio materials, multimedia tools, digital platforms, and language laboratory facilities. These resources play a vital role in facilitating language learning by providing multimodal input, enhancing comprehension, and supporting the development of essential language skills.

Nevertheless, the findings also reveal that the pedagogical integration of these resources remains uneven. While instructional media appear to be effectively employed in supporting listening and, to a lesser extent, reading activities, their use in developing speaking and writing skills is comparatively limited. Qualitative evidence from teacher interviews and classroom observations suggests that this disparity is influenced by several factors, including variations in technological infrastructure, limited teacher training in digital pedagogy, and institutional constraints such as large class sizes and time limitations.

Consequently, improving Arabic language education in this context requires not merely the provision of technological resources but also the development of teachers' pedagogical competencies in integrating instructional media into communicative language teaching practices. Strengthening professional development programs, expanding multimedia learning resources, and fostering systematic technology integration within the curriculum may substantially enhance the effectiveness of Arabic language instruction and promote more balanced development of the four language skills.

References

- ACTFL. (2012). ACTFL proficiency guidelines. ACTFL.
- Albirini, A. (2006). Teachers' attitudes toward information and communication technologies. *Computers & Education*, 47(4), 373–398. <https://doi.org/10.1016/j.compedu.2004.10.013>
- Bax, S. (2011). Normalisation revisited: The effective use of technology in language education. *International Journal of Computer-Assisted Language Learning and Teaching*, 1(2), 1–15. <https://doi.org/10.4018/ijcallt.2011040101>
- Beatty, K. (2010). *Teaching and researching CALL*. Routledge.
- Benson, P. (2013). Learner autonomy. *TESOL Quarterly*, 47(4), 839–843. <https://doi.org/10.1002/tesq.134>
- Bialystok, E. (2017). Bilingual education and cognitive development. *Language Teaching*, 50(1), 45–62.
- Borg, S. (2006). *Teacher cognition and language education*. Continuum.
- Brown, H. D. (2007). *Principles of language learning and teaching* (5th ed.). Pearson.
- Burns, A. (2010). *Doing action research in language teaching*. Routledge.
- Byram, M. (1997). *Teaching and assessing intercultural communicative competence*. Multilingual Matters.
- Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching. *Applied Linguistics*, 1(1), 1–47. <https://doi.org/10.1093/applin/1.1.1>
- Celce-Murcia, M., Brinton, D., & Goodwin, J. (2010). *Teaching pronunciation* (2nd ed.). Cambridge University Press.
- Chapelle, C. (2001). *Computer applications in second language acquisition*. Cambridge University Press. <https://doi.org/10.1017/CBO9781139524681>
- Chapelle, C. (2009). The relationship between second language acquisition theory and computer-assisted language learning. *Modern Language Journal*, 93, 741–753. <https://doi.org/10.1111/j.1540-4781.2009.00970.x>
- Chapelle, C., & Sauro, S. (2017). *The handbook of technology and second language teaching*. Wiley.
- Clark, R. C., & Mayer, R. E. (2016). *E-learning and the science of instruction* (4th ed.). Wiley.
- Council of Europe. (2001). *Common European Framework of Reference for Languages*. Cambridge University Press.
- Council of Europe. (2020). *CEFR Companion Volume*. Council of Europe.
- Creswell, J. W., & Plano Clark, V. (2018). *Designing and conducting mixed methods research* (3rd ed.). Sage.
- Crystal, D. (2012). *Internet linguistics*. Routledge.
- Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford University Press.
- Doughty, C., & Long, M. (2003). *The handbook of second language acquisition*. Blackwell.
- Egbert, J. (2005). CALL principles. *TESOL Quarterly*, 39(4), 755–760.
- Ellis, N. (2015). Cognitive approaches to SLA. *Language Teaching*, 48(1), 1–34.
- Ellis, R. (2003). *Task-based language learning and teaching*. Oxford University Press.
- Ertmer, P., & Ottenbreit-Leftwich, A. (2010). Teacher technology change. *Journal of Research on Technology in Education*, 42(3), 255–284. <https://doi.org/10.1080/15391523.2010.10782551>
- Gilmore, A. (2007). Authentic materials and authenticity in foreign language learning. *Language Teaching*, 40(2), 97–118. <https://doi.org/10.1017/S0261444807004144>
- Godwin-Jones, R. (2018). Emerging technologies. *Language Learning & Technology*, 22(2), 8–16. <https://doi.org/10.10125/44622>
- Godwin-Jones, R. (2020). Emerging technologies: AI in language learning. *Language Learning & Technology*, 24(2), 1–7.
- Goh, C., & Burns, A. (2012). *Teaching speaking*. Cambridge.
- Graddol, D. (2006). *English next*. British Council.
- Gruba, P., & Hinkelman, D. (2012). *Blending technologies in second language classrooms*. Palgrave Macmillan.
- Harmer, J. (2007). *How to teach English*. Pearson.
- Hattie, J. (2009). *Visible learning*. Routledge.
- Hinkel, E. (2011). *Handbook of research in second language teaching*. Routledge.

- Hockly, N. (2015). Developments in online language learning. *ELT Journal*, 69(3), 308–313. <https://doi.org/10.1093/elt/ccv020>
- Hubbard, P. (2009). Computer-assisted language learning. *Annual Review of Applied Linguistics*, 29, 20–43. <https://doi.org/10.1017/S0267190509090035>
- Hubbard, P., & Levy, M. (2006). *Teacher education in CALL*. John Benjamins.
- Johnson, K. (2009). *Second language teacher education*. Routledge.
- Kern, R. (2015). *Language, literacy, and technology*. Cambridge.
- Krashen, S. (1985). *The input hypothesis*. Longman.
- Kukulka-Hulme, A. (2012). Mobile learning. *ReCALL*, 24(1), 1–6. <https://doi.org/10.1017/S095834401100016X>
- Kukulka-Hulme, A., & Shield, L. (2008). Mobile language learning. *ReCALL*, 20(3), 271–289. <https://doi.org/10.1017/S0958344008000335>
- Larsen-Freeman, D., & Anderson, M. (2011). *Techniques and principles in language teaching*. Oxford.
- Levy, M. (1997). *Computer-assisted language learning*. Oxford.
- Lightbown, P., & Spada, N. (2013). *How languages are learned*. Oxford.
- Littlewood, W. (2004). The task-based approach. *ELT Journal*, 58(4), 319–326. <https://doi.org/10.1093/elt/58.4.319>
- Long, M. (2015). *Second language acquisition and task-based language teaching*. Wiley.
- Mayer, R. (2009). *Multimedia learning* (2nd ed.). Cambridge University Press. <https://doi.org/10.1017/CBO9780511811678>
- Mayer, R. (2014). Cognitive theory of multimedia learning. *Cambridge Handbook of Multimedia Learning*. <https://doi.org/10.1017/CBO9781139547369.004>
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge University Press. <https://doi.org/10.1017/CBO9781139524759>
- Nation, I., & Macalister, J. (2010). *Language curriculum design*. Routledge. <https://doi.org/10.4324/9780203870730>
- Nunan, D. (2004). *Task-based language teaching*. Cambridge University Press.
- Oxford, R. (2017). *Teaching and researching language learning strategies*. Routledge.
- Prensky, M. (2001). Digital natives. *On the Horizon*, 9(5), 1–6. <https://doi.org/10.1108/10748120110424816>
- Reinders, H., & White, C. (2016). Technology and autonomy. *Language Learning & Technology*, 20(2), 143–156.
- Richards, J. (2001). *Curriculum development in language teaching*. Cambridge.
- Richards, J., & Rodgers, T. (2014). *Approaches and methods in language teaching* (3rd ed.). Cambridge University Press.
- Schmidt, R. (2001). Attention in language learning. *Cognition and Second Language Instruction*. Cambridge.
- Selwyn, N. (2016). *Education and technology*. Bloomsbury.
- Skehan, P. (1998). *A cognitive approach to language learning*. Oxford.
- Stockwell, G. (2012). *Computer-assisted language learning*. Cambridge University Press.
- Stockwell, G., & Hubbard, P. (2013). CALL research. *Language Teaching*, 46(3), 1–14.
- Swain, M. (2005). The output hypothesis. *Handbook of Research in Second Language Teaching and Learning*. <https://doi.org/10.4324/9781410612700>
- Tashakkori, A., & Teddlie, C. (2010). *Mixed methodology*. Sage.
- Tomlinson, B. (2011). *Materials development in language teaching*. Cambridge.
- Tomlinson, B., & Masuhara, H. (2018). *The complete guide to the theory and practice of materials development*. Wiley.
- UNESCO. (2013). *ICT in education policy*. UNESCO.
- UNESCO. (2020). *Education in a digital world*. UNESCO.
- Vandergrift, L., & Goh, C. (2012). *Teaching and learning second language listening*. Routledge.
- VanPatten, B., & Williams, J. (2015). *Theories in second language acquisition*. Routledge.
- Warschauer, M. (1996). Computer-assisted language learning. *Annual Review of Applied Linguistics*, 16, 3–20. <https://doi.org/10.1017/S026719050000706X>

- Warschauer, M., & Healey, D. (1998). Computers and language learning. *Language Teaching*, 31(2), 57–71. <https://doi.org/10.1017/S0261444800012970>
- Zhao, Y. (2003). Recent developments in technology and language learning. *CALICO Journal*, 21(1), 7–27.