

Techno-Linguistic Decoding Errors in Arabic Writing Assessments: A Case Study of *Alikhtibar* LMS

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Abstract

This study aims to investigate techno-linguistic decoding errors in Arabic writing assessments within the *Alikhtibar* Learning Management System (LMS). The integration of technology in Arabic Language Teaching (ALT) has transformed learning and assessment processes by enhancing student engagement and enabling adaptive evaluation. However, assessing Arabic writing proficiency remains challenging due to the language's complex grammatical system, especially in digital environments. Employing a qualitative descriptive approach, this research analyzed 46 student-produced texts to identify common error types and their pedagogical implications. The findings revealed that preposition misuse was the most frequent error (30 instances), followed by noun agreement errors (19), verb conjugation errors (15), and redundancy (12). These results emphasize the need for context-sensitive assessment tools and targeted instructional strategies. This study is novel in focusing on decoding errors within a practical Arabic LMS platform and in integrating linguistic theory with digital error analysis. It offers valuable insights for evaluating Arabic writing proficiency in the digital era and contributes to the advancement of intelligent, adaptive feedback systems for Arabic language education, with potential applications in instructional design, curriculum development, and NLP-based assessment tools.

Keywords: Arabic writing test; Arabic writing errors; *Alikhtibar* LMS; Error analysis; Writing proficiency.

Introduction

The use of modern technology in Arabic Language Teaching (ALT) educational institutions has seen a significant rise in the context of a digitalized society.¹ This incorporation of technology involves multiple language skills, including listening, speaking, reading, and writing. Common technological tools utilized in technology-assisted language learning consist of computers, mobile applications, tablets, and other similar devices.² The integration of technology in educational settings offers a multitude of advantages, including the incorporation of multimedia capabilities, the provision of collaborative environments, and the facilitation of content exchange and dissemination.³ Technology is acknowledged as a key enabler for boosting students' motivation to learn, encouraging collaborative learning experiences, and supporting their ability to manage time independently and flexibly beyond the classroom, in both academic and non-academic settings.⁴

Coppen first proposed the term "*techno-linguistics*" which emerged from the fusion of technology and linguistics. The approach entails using technological solutions to successfully address challenges related to language.⁵ Recent research in techno-linguistics highlights the importance of integrating natural language processing (NLP) technologies with language teaching methods, especially for tasks involving error detection and correction.⁶ While techno-linguistic systems have been increasingly applied in English or other Latin-based languages, their application in Arabic remains underexplored due to script complexity and diacritic

¹ Mohd. Elmagzoub Eltahir et al., "The Impact of Game-Based Learning (GBL) on Students' Motivation, Engagement and Academic Performance on an Arabic Language Grammar Course in Higher Education," *Education and Information Technologies* 26, no. 3 (2021): 3251–78, <https://doi.org/10.1007/s10639-020-10396-w>.

² Muhammad R Anwar, "AI-Powered Arabic Language Education in the Era of Society 5.0," *Iaic Transactions on Sustainable Digital Innovation (Itsdi)* 5, no. 1 (2023): 50–57, <https://doi.org/10.34306/itsdi.v5i1.607>.

³ Tribhuvan Kumar et al., "Analyzing Multimedia Tools and Language Teaching," *Linguistics and Culture Review* 5, no. S1 (2021): 331–41, <https://doi.org/10.21744/lingcure.v5ns1.1400>.

⁴ Eleonor Amat, John K Tejada, and Ramil Ilustre, "Content-Based and Task-Based Language Teaching in L2 Classroom," *Journal of English Language Teaching and Applied Linguistics* 4, no. 3 (2022): 24–34, <https://doi.org/10.32996/jeltal.2022.4.3.3>.

⁵ Hua Chen, "Innovative Approaches in English Language Teaching: Integrating Communicative Methods and Technology for Enhanced Proficiency," *Communications in Humanities Research* 32, no. 1 (2024): 214–20, <https://doi.org/10.54254/2753-7064/32/20240075>; Ala Şişianu and Ala Puşcaşu, "New Technologies and Foreign Language Learning: Transforming Language Education," *Journal of Social Sciences* 7, no. 1 (2024): 91–99, [https://doi.org/10.52326/jss.utm.2024.7\(1\).07](https://doi.org/10.52326/jss.utm.2024.7(1).07).

⁶ Mohamed Moghazy, "Linguistic Analysis of Some Errors of Arabic-Turkish Writing: A Case Study of Arabic Learner in Dubai," *International Journal of Linguistics Literature and Translation*, 2021, <https://doi.org/10.32996/ijllt.2021.4.5.14>.

sensitivity. This study addresses this gap by analyzing Arabic-specific decoding errors within a digital assessment environment.

Recognizing the limited availability of instructors who possess proficiency in both technology and language theories, this approach argues for fostering collaboration between experts in these respective fields. The main objective is to support educators in effectively incorporating technology and language concepts into their instructional approaches, ensuring a smooth implementation within the educational environment.⁷

Writing proficiency is a core language skill essential for language learners, alongside other abilities such as speaking and listening. It is even no less important than both.⁸ In educational settings, the development of this skill is frequently emphasized through focused practice and structured teaching programs to reach the desired proficiency level. Assessments of Arabic writing abilities have significant relevance within the realm of language education and competence assessment. The Arabic language, being an essential worldwide language with a diverse literary and cultural legacy, has a substantial position within the realms of academia, business, and international communication. Therefore, proficiency in Arabic writing is an essential competency that significantly impacts several facets of an individual's personal and vocational endeavors.

Accurate writing assessments play a crucial role in assessing students' abilities in the Arabic language within educational contexts. The proficiency to express thoughts and concepts in a logical manner via written communication is an essential competency throughout all educational levels, including elementary, secondary, and tertiary education.⁹ Accurate evaluations not only serve as an accurate reflection of a student's linguistic competency but also play a crucial role in fostering academic achievement in many academic fields. Accurate tests of Arabic writing proficiency are fundamental to the safeguarding of cultural identity, the attainment of academic distinction, the achievement of professional advancement, the facilitation of creative expression, the promotion of cross-cultural comprehension, and the facilitation of global contributions.¹⁰ The

⁷ Jinghan Zeng, "The Application of Linguistry on International Chinese Education Supported by Information Technology," *Advances in Education Humanities and Social Science Research* 7, no. 1 (2023): 265, <https://doi.org/10.56028/aehssr.7.1.265.2023>.

⁸ Noza Afliasia, Kasmantoni, and Yunika Febri Yanti, "Writing Errors: A Study of Students Linguistic Errors in Insya Muwajjah Learning," *An Nabigoboh* 26, no. 1 (June 14, 2024): 79–96, <https://doi.org/10.32332/ANNABIGHOH.V26I1.79-96>.

⁹ Marisela Bonilla López et al., "Comprehensive Corrective Feedback in Foreign Language Writing: The Response of Individual Error Categories," *Journal of Writing Research* 13, no. 1 (2021): 31–70, <https://doi.org/10.17239/JOWR-2021.13.01.02>.

¹⁰ Moh. Ismail and Aufa Musthafa Alfian, "Pengembangan Materi Tes Keterampilan Menyimak Bahasa Arab Menggunakan Moodle Untuk Meningkatkan Kemampuan Menyimak Mahasiswa Universitas Darussalam Gontor" 13, no. 2 (2018), <https://doi.org/10.21111/at-tadib.v13i2.2467>.

significance of maintaining precise writing evaluations in the Arabic language is crucial for promoting linguistic competence and effective communication.¹¹

A key theme is the widespread occurrence of spelling and grammatical errors among Arabic learners. Rufaiqoh's research emphasizes that students frequently face challenges with the mechanical elements of Arabic writing, resulting in spelling errors that often hinder clarity.¹² This finding is echoed by Wahyuni, who emphasizes that dictation and standard graphology are critical for mastering Arabic writing, and that errors in spelling can significantly impact written expression.¹³ Khateeb's research indicates that grammatical errors, particularly in verb and subject usage, are common among Arab learners writing in English, suggesting that similar patterns may exist in their Arabic writing.¹⁴ This connection between spelling and grammatical errors underscores the need for targeted interventions in writing instruction.

The purpose of this paper is to explore how technological solutions can address language-related challenges, focusing on the limited availability of instructors with expertise in both technology and language theories. While technology has advanced in language teaching, there is a significant gap in its use for evaluating Arabic writing skills, particularly in integrating linguistic approaches. Although LMS platforms and Arabic language testing tools have emerged, existing systems generally emphasize surface-level evaluation, frequently overlooking the intricate linguistic aspects of Arabic writing.¹⁵ Prior studies have highlighted error types but rarely link them with digital platforms' ability to detect and adapt to these errors.¹⁶ This disconnect underscores the need for research that integrates linguistic error analysis with system-based evaluation, particularly in educational LMS like Alikhtibar. This study aims to bridge this gap by

¹¹ Ali Mohammed Saleh Al-Hamzi et al., "Frequent Linguistic Errors in the Writing of Yemeni EFL Arabic-Speaking Learners," *Studies in English Language and Education* 10, no. 1 (2023): 350–68, <https://doi.org/10.24815/siele.v10i1.26022>.

¹² Elok Rufaiqoh, "Jacob's Analytical Assessment in the Evaluation of Arabic Writing Skills at Madrasah Aliyah Negeri Program Keagamaan," *Alsinatuna* 9, no. 1 (2023): 29–40, <https://doi.org/10.28918/alsinatuna.v9i1.1913>.

¹³ Wahyuni Wahyuni, "Analyzing Spelling Errors and Benefiting from Them to Develop a Spelling Exercise Booklet Based on Constructivist Theory," *Arabiyat Jurnal Pendidikan Bahasa Arab Dan Kebahasaan* 10, no. 2 (2023): 269–82, <https://doi.org/10.15408/a.v10i2.35815>.

¹⁴ Ahmed A Khateeb, "Learners' Writing Errors in Foreign Languages: Arabic and English as Examples," *Humanities and Management Sciences - Scientific Journal of King Faisal University*, 2022, 1–6, <https://doi.org/10.37575/h/lng/220016>.

¹⁵ Moh. Ismail, Fairuz Subakir Ahmad, and Muhammad Alamuddin Ma'ruf, "The Impact of Learning Management System 'Arabi.Id' Web-Based Application on Developing Arabic Language Skills," *Al-Ta'rib : Jurnal Ilmiah Program Studi Pendidikan Bahasa Arab LAIN Palangka Raya* 11, no. 2 (December 8, 2023): 213–32, <https://doi.org/10.23971/altarib.v11i2.6591>.

¹⁶ Moh. Ismail, "Design Objective Tests Using the Computer Program in Developing the Arabic Language for Non-Native Speakers," *At-Ta'dib* 14, no. 2 (December 19, 2019): 1, <https://doi.org/10.21111/at-tadib.v14i2.4824>.

proposing collaboration between experts in both fields, helping educators incorporate technology into writing assessments more effectively. This study seeks to answer the following research questions: (1) What types of technological decoding errors are prevalent in Arabic writing assessments within Alikhtibar LMS? (2) What are the underlying linguistic or systemic causes of these errors? (3) How can LMS-based assessment systems be improved to provide adaptive and pedagogically sound feedback to learners?

This study employs a qualitative descriptive analysis to examine decoding errors in Arabic writing assessments within the Alikhtibar.com Learning Management System (LMS). Qualitative descriptive research is well-suited for exploring phenomena that remain poorly understood, offering clear and direct descriptions of experiences and processes. This method is fitting as it enables an in-depth analysis of naturally occurring error patterns in genuine student texts, without enforcing a strict theoretical framework. It provides flexibility in describing the complexity of decoding errors in Arabic writing, especially those influenced by script-specific and technological constraints. This is crucial for understanding how students interact with digital Arabic writing tasks in LMS-based contexts.

In addition to this approach, a comprehensive error analysis will be implemented, focusing on grammatical, syntactic, and vocabulary errors, as highlighted by Khateeb¹⁷ and Rufaiqoh et al.¹⁸ This analysis will entail gathering student writing samples and classifying the errors to uncover common patterns, in accordance with the qualitative approach outlined by Fadhlan et al.¹⁹ This multifaceted methodology will provide a robust framework for understanding and improving Arabic writing proficiency in the LMS context.

A purposive sample of 46 student-authored texts was selected from Arabic tests and assessments on Alikhtibar.com. These texts include a variety of writing tasks and genres, such as essays, quizzes, and discussion forum posts, produced by learners at novice, intermediate, and advanced levels of proficiency. The sample was drawn from students at the University of Darussalam Gontor, Indonesia, ensuring diversity in writing abilities and linguistic backgrounds. Sampling was purposive, focusing on texts that contained a variety of written genres and represented a balance of proficiency levels. Selection criteria included

¹⁷ Khateeb, "Learners' Writing Errors in Foreign Languages: Arabic and English as Examples."

¹⁸ Elok Rufaiqoh et al., "Jacob's Analytical Assessment in the Evaluation of Arabic Writing Skills at Madrasah Aliyah Negeri Program Keagamaan," *Alsinatuna* 9, no. 1 (2023): 29–40, <https://doi.org/10.28918/alsinatuna.v9i1.1913>.

¹⁹ Muhammad Fadhlan et al., "Linguistic Error in Writing Arabic on Students of Pondok Pesantren Al-Muhsinin Kerinci," *Abjadia International Journal of Education* 6, no. 1 (2021): 56–70, <https://doi.org/10.18860/abj.v6i1.11888>.

text completeness, relevance to writing tasks, and error density, ensuring that the data reflected authentic challenges faced by Arabic learners in digital assessments.

The data were collected directly from the Alikhtibar LMS platform over the course of one academic semester. Researchers accessed archived student submissions through institutional permissions and exported the texts into a structured database for analysis. All data were anonymized before analysis, with no personally identifiable student information preserved. This approach ensured ethical data management and maintained consistency in data quality.

The collected texts were systematically analyzed to identify decoding errors based on linguistic criteria such as letter recognition, diacritic placement, and word segmentation.²⁰ The analysis adhered to linguistic analytical principles, with a primary focus on identifying and classifying decoding errors in a detailed manner. Thematic coding was conducted through a three-phase process: (1) open coding to detect preliminary error patterns, (2) axial coding to categorize these patterns into broader classifications such as morphological, syntactic, and lexical errors, and (3) selective coding to distill key themes associated with techno-linguistic decoding. To ensure validity, the data were independently examined by two coders. Any discrepancies were resolved through deliberation, resulting in a 90% inter-coder agreement rate, reflecting strong coding reliability. Thematic analysis was employed to uncover recurrent error patterns and their relevance to language acquisition.²¹ Thematic analysis is a method for identifying, analyzing, and reporting patterns (themes) within data, providing a rich and detailed account of the data.

To ensure the trustworthiness of the findings, methodological triangulation was employed by combining textual analysis with researcher field notes from LMS interaction logs. An audit trail was maintained to document decision-making throughout the coding process. Additionally, member checking was carried out with selected instructors to validate the interpretations of the identified error types and their pedagogical significance.

²⁰ Ihwan Mahmudi et al., “Designing an Arabic Vocabulary Test Based on the Actfl (American Council on the Teaching of Foreign Languages) Standards for The Novice Level,” *Abjadia: International Journal of Education* 9, no. 3 (December 16, 2024): 759–66, <https://doi.org/10.18860/abj.v9i3.29055>.

²¹ Marcelina S. Deiparine, Matthew G. Montalla, and Remedios C. Bacus, “Uncovering the Common Linguistic Errors in Student Journalists’ Unedited News Articles: A Comprehensive Analysis,” *World Journal of English Language* 14, no. 4 (July 1, 2024): 131–42, <https://doi.org/10.5430/wjel.v14n4p131>; John Alderete, “Cross-Linguistic Trends in Speech Errors: An Analysis of Sub-Lexical Errors in Cantonese,” *Language and Speech* 66, no. 1 (March 1, 2023): 79–104, <https://doi.org/10.1177/00238309211071045>.

Findings and Discussion

In recent years, technological advancements have revolutionized the field of education, particularly in the domain of assessments. Computer-based assessments offer numerous advantages, including increased efficiency, scalability, and enhanced multimedia capabilities.²² However, alongside these benefits come challenges, particularly concerning the accurate evaluation of linguistic proficiency in languages with complex scripts such as Arabic.²³ Techno-linguistic decoding errors, arising from the interplay between linguistic structures and technological interfaces, present substantial challenges to the validity and reliability of Arabic writing assessments. These errors originate from the combined effects of linguistic complexity and technological mediation. From a linguistic standpoint, the intricate inflectional morphology, flexible word order, and diacritic-dependent phonology of Arabic impose a significant cognitive burden on learners. From a cognitive standpoint, students may rely on surface-level memorization rather than deeper syntactic awareness, resulting in systematic errors such as incorrect verb forms or misplaced prepositions. Technologically, LMS platforms like Alikhtibar may lack nuanced feedback mechanisms that recognize partial correctness or learner intent, thus reinforcing persistent inaccuracies without proper scaffolding. The researchers found different types of decoding errors encountered in Arabic writing assessments and offer insights into potential solutions.



Figure 1. First original sentence with errors

The original sentence used the incorrect conjugation "يتكلمها" (*yatakallamuha*) for the verb "يتكلم" (*yatakallamu*). Although both forms derive from the same root, they are employed in distinct contextual settings. "يتكلم" (*yatakallamu*) is the active form meaning "he speaks", while the needed form in this sentence is the negative form to emphasize that the action of speaking is not happening. The correct conjugation for the third-person singular negative present tense is "لا يتكلم" (*lā*

²² Mahmudi et al., "Designing An Arabic Vocabulary Test Based On The Actfl (American Council On The Teaching Of Foreign Languages) Standards For The Novice Level."

²³ Haiwei Zhang and Leah Roberts, "The Influence of L1 Script Directionality and L2 Proficiency on Hanzi Learning Among Arabic and English Learners of L2 Chinese," *Iral - International Review of Applied Linguistics in Language Teaching*, 2021, <https://doi.org/10.1515/iral-2018.0330>.

yatakallamu). The word "لا" (*lā*) is used to create a negative sentence in Arabic, and the change at the end of the verb from "يتكلم" to "لا يتكلم" aligns with the grammatical rules for the negative form. The verb "لا" (*lā*) is a negation particle indicating that an action does not occur. The verb "لا يتكلم" (*yatakallamu*) is the base form of the verb, meaning "to speak." In the negative form, this verb becomes "لا يتكلم" (*lā yatakallama*), indicating that the subject (third-person singular) does not speak.

The phrase "إلا أناس له ثقافة عالية" (*illā unāsun labu thaqāfah ‘āliyah*) uses both "إلا" (*illā*) and "لا" (*lā*) to express negation. The word "إلا" (*illā*) in Arabic means "except." Its usage inherently signals that the subsequent phrase serves as an exception to the preceding statement, thereby conveying a negative connotation. In the above phrase, using "لا" (*lā*) before "له" (*labu*) adds unnecessary negation because "إلا" (*illā*) is sufficient to convey the meaning of an exception. To eliminate redundancy, the phrase should be simplified to "إلا أناس ذوو ثقافة عالية" (*illā unāsun dhūwū thaqāfah ‘āliyah*), which means "except people with high culture." The verb "إلا" (*illā*) means "except" and already carries the meaning that something is an exception from the whole. Using "لا" (*lā*) in this context results in a double expression of negation, which is unnecessary and confusing. The corrected phrase "إلا أناس ذوو ثقافة عالية" (*illā unāsun dhūwū thaqāfah ‘āliyah*) directly conveys that only people with high culture are meant, without excessive negation.



Figure 2. Second original sentence with errors

In the original sentence "إحدى اللغة الست" (*‘ihdā al-luġah al-sitta*), we found an error. The phrase uses the singular noun "اللغة" (*al-luġah*) with the incorrect definite article. The plural form of the noun it refers to should come after "إحدى" (*‘ihdā*), which means "one of." The correct phrase should be "إحدى اللغات الست" (*‘ihdā al-luġāt al-sitta*). "اللغات" (*al-luġāt*) is the plural form of "اللغة" (*al-luġah*) and is required here because "إحدى" (*‘ihdā*) refers to one of the six languages. The term "اللغة" (*al-luġah*) is a feminine singular noun meaning "the language." Tern "اللغات" (*al-luġāt*) is the feminine plural form meaning "the languages." When referring to a single entity within a group, the plural form is used to align with the group as a whole (e.g., one of the six languages).

In the original phrase: "لها دورا كبيرا أنها لغة القرآن" (*labā dauran kabīran annahā luġat al-qur’ān*), we identified an error. The use of "أنها" (*annahā*) is redundant

because "لها" (*lahā*) already indicates possession or association. The phrase should be simplified to "لها دور كبير لأنها لغة القرآن" (*lahā daurun kabīrun li-annahā luġat al-qurʾān*). The verb "لها" (*lahā*) means "it has" or "for it," indicating that something belongs to or is associated with it. The verb "دورا كبيرا" (*daurun kabīran*) is in the accusative form, meaning "a great role," but since it's used with "لها" it should be in the nominative form: "دور كبير" (*daurun kabīrun*). The verb "أنها" (*annahā*) means "that it is," which is redundant here. The corrected phrase, "لها دور كبير لأنها لغة القرآن" (*lahā daurun kabīrun li-annahā luġat al-qurʾān*), translates to "It has a great role because it is the language of the Quran."

In the original text, "أنها لغة القرآن" (*annahā luġat al-qurʾān*), we discovered an error. The phrase is missing a preposition that connects it to the previous clause to indicate causation. The correct preposition is "لأن" (*li-anna*), meaning "because." The full phrase should be "لها دور كبير لأنها لغة القرآن" (*lahā daurun kabīrun li-annahā luġat al-qurʾān*). The verb "لأن" (*li-anna*) is a preposition that introduces a reason or cause, meaning "because." Using "لأن" (*li-anna*) before "أنها" (*annahā*) establishes a causal relationship: "because it is." The revised phrase effectively connects the widespread use of the language to its status as the language of the Quran.



Figure 3: Third original sentence with errors

The original sentence "لها التاريخ الطريق" (*lahā at-tāriḫ at-ṭarīq*) used incorrect noun usage. This phrase uses two definite nouns, "التاريخ" (*at-tāriḫ*, "the history") and "الطريق" (*at-ṭarīq*, "the road"), in a way that doesn't make grammatical or contextual sense. The words are semantically unrelated, and their juxtaposition creates confusion. The appropriate phrasing should reflect the notion of Arabic possessing a significant or rich historical background. Thus, "تاريخ عريق" (*tāriḫ ʿarīq*), meaning "ancient history" or "rich history", is more appropriate. The word "تاريخ" (*tāriḫ*) means "history," and "عريق" (*ʿarīq*) is an adjective meaning "ancient" or "deep-rooted." Combining these, "تاريخ عريق" (*tāriḫ ʿarīq*) effectively conveys that Arabic has a long and significant history.

The original phrase "وتأثر باللغة الأخرى" (*wa ta'athbara bi-al-luġah al-'ukbrā*) here is missing a preposition. This phrase implies that Arabic influenced other languages; however, it omits the appropriate preposition needed to clearly express the causal relationship. The correct preposition is "بسبب" (*bisabab*), which means

"because of," to clarify that the influence is due to interactions with other languages. The phrase "وتأثرت" (*wa ta'aththarat*) means "and was influenced." And "بلغات أخرى" (*bi-luġātin 'ukbrā*) means "by other languages." The full phrase should be "أخبرتتأثرت بلغات" (*wa ta'aththarat bi-luġātin 'ukbrā*), indicating that Arabic has received influence from other languages.

The original phrase "اللهجات الكثيرة" (*al-lahjāt al-kathīrah*) applied the redundant adjective. The phrase uses "كثيرة" (*kathīrah*) twice, which is redundant. However, the provided original phrase does not actually repeat the adjective, so let's address the redundancy in a different context. Simply using "لهجات كثيرة" (*lahjāt kathīrah*), meaning "many dialects", is sufficient. The word "اللهجات" (*al-lahjāt*) means "the dialects", and "كثيرة" (*kathīrah*) means "many". The phrase should be "لهجات كثيرة" (*lahjāt kathīrah*), meaning "many dialects," without redundancy. In Arabic, careful attention to redundant adjectives is essential to maintain clarity and precision in communication. By eliminating unnecessary repetition, we can convey our message more effectively and efficiently.

The original phrase "العربية لها التاريخ الطويل وتأثر باللغة الأخرى وتقسم إلى اللهجات الكثيرة" (*al-'arabīyah lahā at-tāriḫ at-ṭarīq wa ta'aththarat bi-al-luġah al-'ukbrā wa tuqassam ilā al-lahjāt al-kathīrah*) was Unclear Meaning. The overall sentence is unclear due to improper word choices and structure. The sentence lacks coherence in conveying information about the Arabic language. It should be restructured to clearly express that Arabic possesses a rich history, has been shaped by influences from other languages, and encompasses numerous dialects.



Figure 4. Fourth original sentence with errors

The original sentence "نظرت الأستاذة نهي أن وجود اللهجات المختلفة بالعرب كالصعوبة في معرفة الفصحى الصحيح وكذلك لا يمكن. وهذا يظهر مثل ما نجد في مجال التعليم كالصعوبة في معرفة الفصحى الصحيح للسياسيين أن يشرح مجتمعهم إلى تغيير اللهجات" contains multiple errors, including incorrect noun case, redundancy, and improper verb usage, resulting in an unclear overall meaning. The phrase "أن وجود اللهجات المختلفة بالعرب كالصعوبة في معرفة الفصحى الصحيح" uses "الصعوبة" (*aṣ-ṣu'ūbah*) incorrectly in the nominative case. It should be in the genitive case as part of a possessive construction, indicating the difficulty associated with understanding correct Arabic (الفصحى الصحيح). The correct phrase should change "كالصعوبة" (*ka-ṣ-ṣa'ūbah*) to "يمثل صعوبة" (*yumaththīlu*

ṣu'ūbah) to clarify that the existence of different dialects represents a difficulty. The phrase "يمثل" (*yumathbilu*) means "represents," which appropriately conveys the idea that the presence of various dialects poses a difficulty. And the phrase "صعوبة" (*ṣu'ūbah*) means "difficulty," and using it in this way makes it clear that it's the difficulty in understanding the correct form of Arabic.

The phrase "مثل ما نجد في مجال التعليم" is redundant because "مثل ما" (*mithl mā*), meaning "like what we find," repeats the idea already expressed. Simplifying it by removing "مثل ما" (*mithl mā*) results in the phrase "وهذا يظهر جلياً في مجال التعليم," which is clearer and more concise. The phrase "وهذا يظهر جلياً" (*wa hādā yuẓḥir jalīyyān*) means "and this is clearly evident." And the phrase "في مجال التعليم" (*fī majāl at-ta'lim*) means "in the field of education." The phrase "وكذلك لا يمكن" uses the verb "يشير" (*yushīru*), which means "to point" or "to indicate" and does not fit the context of striving for change. Replacing "يشير" (*yushīru*) with "يسعوا" (*yas'aw*), which means "to strive" or "to work towards," corrects this. The corrected phrase is "كما لا يمكن للسياسيين أن يسعوا" means "to strive" and is appropriate for the context of working towards changing dialects. The phrase "لتغيير اللهجات في مجتمعهم" (*litaghyir*) means "to change." And the phrase "في مجتمعهم" (*fī mujtama'ihim*) means "in their society."



Figure 5. Fifth original sentence with errors

The original sentence contains several errors, such as incorrect verb conjugation, missing prepositions, redundancy, and an overall lack of clarity. Original Phrase: "فالناس يستخدمون لغتهم كما تتعودوا" (*fa-annās yastakhdimūn lughātahum kamā ta'annwadū*). The verb "تتعودوا" (*tata'annwadū*) is incorrectly used here. "تتعودوا" (*tata'annwadū*) means "they become accustomed to" in the present tense, but the intended meaning is "as they have learned." The correct verb is "تعلموا" (*ta'allamū*), which means "they have learned" in the past tense.

Original Phrase: "وكان الشباب يشتركون في الشبكات الاجتماعية كثيرة التي ستأثر في" (*wa kāna al-shabāb yushārikūn fī ash-shabakāt al-ijtima'iyah kathīrah allatī satat'aththar fī lughātahum*). The phrase "التي ستأثر في لغتهم" (*allatī satat'aththar fī lughātahum*) lacks a proper preposition to show the relationship between social

media networks and their impact on language. Adding the preposition "منها" (*minhā*), which means "from them", establishes the necessary causal relationship. Original Phrase: "فتوجيه تطور اللغة العربية إلى أمر معين" (*fa-tanjih taṭammur al-luġah al-'arabiyyah 'ilā 'amrin ma'inan*). The word "أمر" (*amr*) is used twice, which is redundant. The word "معين" (*mu'ayīn*) already means "specific" or "certain," making the second "أمر" (*amr*) unnecessary. Remove the redundant word to make the sentence more concise. Original Phrase: "فالناس يستخدمون لغتهم كما تتعودوا وكان فتوجيه تطور اللغة العربية إلى الشباب يشتركون في الشبكات الاجتماعية كثيرة التي ستأثر في لغتهم". The overall sentence structure and word choices make the intended message unclear. Correcting the verb conjugation, inserting the missing preposition, eliminating redundancy, and rephrasing the sentence enhance its clarity and coherence.

Technology has become increasingly important in Arabic language teaching (ALT) classrooms in the current digital era. It is used to enhance all elements of language learning, including listening, speaking, reading and writing.²⁴ Typical technical instruments utilized in ALT encompass computers, mobile applications, and tablets, among other devices.²⁵ These technologies offer various benefits to schools, including multimedia integration, the creation of collaborative environments, and efficient information sharing and delivery. Compared to traditional communication methods, technology has been shown to enhance student motivation, promote collaborative learning, and support flexible, independent learning beyond the classroom.²⁶

Current research frequently neglects the correlation between the utilization of technology and the meta-linguistic knowledge of Arabic learners, a vital component of their genuine language mastery. A multitude of studies primarily concentrate on utilizing technological devices for vocabulary and grammar instruction, disregarding the crucial aspect of fostering students' comprehension of genuine literacy.²⁷ Authentic literacy in language acquisition refers to the ability to use language as a tool for expressing ideas, involving intentional language choices that extend beyond grammatical accuracy to effectively convey intended meanings in specific contexts.

²⁴ Chen, "Innovative Approaches in English Language Teaching: Integrating Communicative Methods and Technology for Enhanced Proficiency."

²⁵ Moh. Ismail et al., "Electronic Mind Map in the Development of Educational Tools in the Science of Information in the Fourth-Semester Students" 7, no. 2 (2024), <https://doi.org/10.31943/afkarjournal.v7i2.1194>.

²⁶ Adel Jendli and Mohammed Albarakati, "Exploring Motivational Dynamics: The Role of Oral Activities in Improving Arab Students' Learning of English," *International Journal of Learning, Teaching and Educational Research* 23, no. 3 (March 1, 2024): 131–49, <https://doi.org/10.26803/ijlter.23.3.7>.

²⁷ Benjamin M. Nangle et al., "An Analysis of the Most Common L1 Interference Grammar, Vocabulary and Syntax Errors of Lithuanian Learners in Written English," *Sustainable Multilingualism* 24, no. 1 (June 1, 2024): 79–105, <https://doi.org/10.2478/sm-2024-0004>.

The analysis of Arabic writing errors reveals several key areas where learners frequently encounter difficulties.²⁸ This study examines verb conjugation, redundancy in negation, incorrect noun usage, and missing prepositions. Through the analysis of specific examples, researchers gain insights into the characteristics of these errors and their implications for language teaching. The frequency data of Arabic writing errors can be seen in the following table:

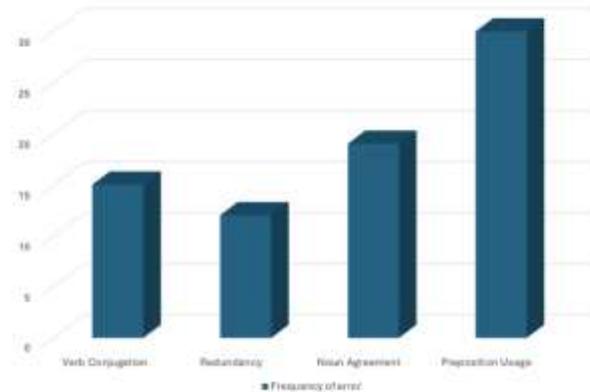


Table 1: Frequency of Arabic writing assessment error

The frequency count of different error types in the text shows that verb conjugation (phonological) errors were recorded 15 times. Redundancy errors appeared 12 times, followed by noun agreement errors with 19 instances and preposition usage errors occurred most frequently, with 30 instances. This data highlights preposition usage as the most common issue, while verb conjugation errors are less frequent, suggesting that attention to proper preposition use could significantly improve language accuracy.

Verb Conjugation Errors

Verb conjugation errors are a significant issue in Arabic language writing, as evidenced by multiple instances in the analyzed text.²⁹ One notable example involves the incorrect conjugation of "يتكلم" (*yatakallamu*) instead of "لا يتكلم" (*lā yatakallama*). Both verbs derive from the same root but serve different grammatical functions. "يتكلم" (*yatakallamu*) is the active form meaning "he speaks," while "لا يتكلم" (*lā yatakallamu*) is the negative form needed to indicate that speaking is not happening. The proper use of the negation particle "لا" (*lā*)

²⁸ Moghazy, "Linguistic Analysis of Some Errors of Arabic-Turkish Writing: A Case Study of Arabic Learner in Dubai."

²⁹ Zulaeha Zulaeha, "Writing Composition Problem in Arabic Language Learning Among Arabic Language Education Students," *Langkawi Journal of the Association for Arabic and English*, 2022, <https://doi.org/10.31332/lkw.v0i0.3399>.

changes the verb to its negative form, adhering to Arabic grammatical rules. Another example is the error in "فالناس يستخدمون لغتهم كما تتعودوا" (*fannās yastakhdimūn luġhātahum kamā tataʿawwadū*), where "تتعودوا" (*tataʿawwadū*) is incorrectly used. The intended meaning is "as they have learned," which should be expressed with "تعلموا" (*taʿallamū*). These errors highlight the critical need to master verb forms, including their negations and appropriate contextual applications, to ensure accurate meaning in Arabic. Incorrect verb usage (phonological), such as "وكذلك لا يمكن للسياسيين أن يشير مجتمعهم إلى تغيير اللهجات" (*yushbiru*) instead of "يسعوا" (*yasʿaw*), further illustrates the challenges of proper verb conjugation and contextual application in Arabic writing.

Redundancy Errors

Redundancy in writing is another prevalent issue, leading to unclear or overly complicated sentences.³⁰ The phrase "إلا أناس له ثقافة عالية" (*illā unās labu thaqāfah ʿāliyah*) demonstrates redundancy by using both "إلا" (*illā*) and "لا" (*lā*) for negation. In Arabic, "إلا" (*illā*) already implies an exception, making "لا" (*lā*) redundant. The corrected phrase "إلا أناس ذوو ثقافة عالية" (*illā unāsun dhūw thaqāfah ʿāliyah*) removes the unnecessary "لا" (*lā*). Similarly, in "لها دورا كبيرا أنها لغة القرآن" (*lahā dauran kabīran ʿannahā luġat al-qurʿān*), the use of "أنها" (*annahā*) is redundant since "لها" (*lahā*) already indicates possession. Simplifying this to "لها دور كبير لأنها" (*lahā daurun kabīrun li-annahā luġat al-qurʿān*) enhances clarity. Another instance of redundancy is seen in "اللهجات الكثيرة" (*al-lahjāt al-kathīrah*), where the adjective "كثيرة" (*kathīrah*) is repeated unnecessarily. The phrase should be simplified to "لهجات كثيرة" (*lahjāt kathīrah*), meaning "many dialects." Similarly, the expression "وهذا يظهر جلياً" (*mithlu mā*) can be simplified to "في مجال التعليم" (*wa bādhā yuẓhir jalīyyaan fī majāl at-taʿlīm*) to avoid redundancy. Finally, the phrase "فتوجيه تطور اللغة العربية إلى أمر معين" (*fa-tawjīh taṭawwur al-luġah al-ʿarabiyyah ʿilā ʿamrin muʿayyan*) contains the redundant word "أمر" (*amr*), which should be removed to improve clarity. These examples emphasize the importance of eliminating redundant expressions to preserve precision and readability in Arabic writing.

Noun Agreement Errors

Noun agreement errors are also common, particularly in terms of singular and plural forms. The phrase "إحدى اللغة الست" (*iḥdā al-luġah al-sitt*) incorrectly uses the singular noun "اللغة" (*al-luġah*) instead of the plural "اللغات" (*al-luġāt*). The correct phrase is "إحدى اللغات الست" since "iḥdā" means "one of," and it should come after a plural noun. Another instance is "لها التاريخ الطريق" (*lahā at-tārīkh at-*

³⁰ Hameed Al-Zubeiry, "Coherence Problems in the English Writings of Saudi University Students," *Journal of Umm Al-Qura University for Language Sciences and Literature*, 2020, <https://doi.org/10.54940/ll34876557>.

ṭariq), which uses definite nouns "التاريخ" (*at-tāriḥ*) and "الطريق" (*at-ṭariq*) inappropriately. The phrase should be "تاريخ عريق" (*tāriḥ 'arīq*), meaning "rich history." Accurate noun agreement is crucial for producing meaningful sentences, necessitating learners' careful attention to the grammatical number and definiteness of nouns. Noun case errors (morphological) can impact the clarity of sentences, as seen in "أن وجود اللهجات المختلفة بالعرب كالصعوبة في معرفة الفصحى الصحيح" (*ka-ṣ-ṣa'ūbah*), which should be "يمثل صعوبة" (*yumathbilu ṣu'ūbah*) to correctly indicate the difficulty. These examples highlight the importance of accurate noun usage and agreement in Arabic writing to ensure grammatical correctness and clarity.

Preposition Usage Errors

Preposition usage errors are evident in the text, affecting the clarity and coherence of sentences. An example is the missing preposition in "أنها لغة القرآن" (*annahā luġat al-qur'ān*), where "لأن" (*li'anna*), meaning "because" should precede "أنها" (*annahā*) to indicate causation. The corrected phrase "لها دور كبير لأنها لغة" (*lahā dūr kabīr li-annahā luġat al-qur'ān*) clarifies the intended meaning. Another example is "وتأثر باللغة الأخرى" (*wa ta'athbara bi-al-luġah al-'ukbrā*), which lacks the preposition "بسبب" (*bisabab*), meaning "because of." Including this preposition makes the phrase "وتأثرت بلغات أخرى" (*wa ta'athbarat bi-luġāt 'ukbrā*) grammatically correct. This sentence "وكان الشباب يشتركون في الشبكاتية كثيرة الإي" (*wa kāna al-shabāb yushārikūn fī ash-shabakāt al-ijtimā'iyah kathīrah allatī sata'at'athbar fī luġhātahum*) does not have the necessary preposition "منها" (*minhā*) to show the connection between social media networks and how they change language. Correct use of prepositions is vital for connecting clauses and establishing logical relationships in Arabic sentences, thereby ensuring clear and accurate communication of the intended meaning.

These findings resonate with previous studies highlighting morpho-syntactic difficulties among Arabic learners. However, unlike prior research, this study situates the errors within a real-time LMS environment, exposing not just the error types but also how digital systems interact with learner input. The transition from traditional classroom writing to technology-mediated platforms uncovers new patterns of error occurrence, especially when system feedback or interface design limits learners' ability to recognize their mistakes.

Factors Contributing to Techno-Linguistic Decoding Errors

The analysis of errors in the provided text highlights several factors that contribute to techno-linguistic decoding errors in Arabic language assessments. These factors encompass the intricacies of Arabic grammar, including nuanced verb conjugation and negation, challenges in noun agreement, redundancy, and the use of prepositions. Each element significantly influences the interaction

between language and technology, often contributing to potential decoding errors.³¹

Arabic grammar is inherently complex, with intricate rules governing verb conjugation, noun agreement, and sentence structure. This complexity can pose significant challenges for automated systems used in computer-based assessments.³² For example, the incorrect conjugation of "يتكلم" (*yatakallamu*) instead of "لا يتكلم" (*lā yatakallama*) demonstrates how a slight variation in verb form can alter the meaning of a sentence. Automated systems often face difficulties in accurately interpreting these linguistic nuances, which can result in misinterpretations of the intended meaning. The complicated rules for using negation particles, like the repetition in "إلا أناس له ثقافة عالية" (*illā unas labu thaqāfab 'āliyah*), make it even harder to accurately judge language skills.

Verb conjugation and negation in Arabic involve specific forms and particles that convey different meanings. Misunderstanding or misapplying these forms can result in incorrect sentences. For instance, the incorrect use of "أنها" (*'annahā*) in "لها دورا كبيرا أنها لغة القرآن" (*labā dauran kabīran 'annahā luġat al-qur'ān*) introduces redundancy and complicates the intended meaning. Similarly, the absence of the negation particle "لا" (*lā*) in the needed negative form can lead to misinterpretation. These nuances require a comprehensive understanding of Arabic grammar, which automated systems may not fully possess, thereby increasing the likelihood of decoding errors.

Noun agreement errors, such as the use of singular instead of plural forms, also contribute to decoding errors. In the phrase "إحدى اللغة الست" (*'ihdā al-luġab al-sitt*), the singular noun "اللغة" (*al-luġab*) should be plural "اللغات" (*al-luġāt*) to match the context. This error underscores the difficulty of achieving accurate noun agreement, a key aspect of grammatical correctness. Automated systems must be equipped to detect and correct these errors, a task made complex by the diverse noun forms and agreement rules in Arabic.

Redundancy in language use can obscure the intended meaning and lead to decoding errors. The phrase "إلا أناس له ثقافة عالية" (*illā unas labu thaqāfab 'āliyah*) uses both "إلا" (*illā*) and "لا" (*lā*) unnecessarily, resulting in a redundant expression. Simplifying to "إلا أناس ذوو ثقافة عالية" (*illā 'anāsum dhūwū thaqāfab 'āliyah*) removes

³¹ Eid M. Alhaisoni, Khalid M. Al-Zuoud, and Daya Ram Gaudel, "Analysis of Spelling Errors of Beginner Learners of English in the English Foreign Language Context in Saudi Arabia," *English Language Teaching* 8, no. 3 (February 13, 2015): 185–92, <https://doi.org/10.5539/elt.v8n3p185>.

³² Abidah Aqilah Binti Mohd Noor and Anuar Bin Sopian, "Correlation Between Level of Grammar Proficiency and Arabic Speaking Skills of Diploma Students at UITM," *International Journal of Academic Research in Business and Social Sciences*, 2023, <https://doi.org/10.6007/ijarv13-i4/16630>.

the redundancy and clarifies the meaning. Redundant expressions may hinder automated systems, resulting in misinterpretation and inaccurate evaluations.

Correct preposition usage is essential for linking clauses and establishing logical relationships in sentences. Missing prepositions, as seen in "أنها لغة القرآن" (*annabā luġat al-qur'ān*) without the preposition "لأن" (*li-anna*), can disrupt the intended causal relationship. Automated systems must precisely identify and insert suitable prepositions to maintain coherent sentence structures; otherwise, the output may become fragmented or inaccurately interpreted.

Techno-linguistic decoding errors in Arabic language tests are caused by many things, such as the complicated nature of Arabic grammar, the subtleties of verb conjugation and negation, and the difficulties of noun agreement, redundancy, and preposition use. These factors highlight the necessity for advanced, context-sensitive automated systems capable of accurately interpreting and evaluating Arabic language proficiency. Addressing these factors through improved technological solutions and targeted linguistic instruction can enhance the reliability and validity of Arabic language assessments.

These insights suggest the urgent need for pedagogically driven digital interventions. Educators should consider embedding adaptive writing tools within LMS platforms that provide real-time, rule-based feedback tailored to Arabic grammar structures. For example, grammar-sensitive text editors can identify morphological or syntactic irregularities and provide corrective feedback. Furthermore, incorporating guided error analysis into classroom instruction, where students examine their own mistakes using reports generated by the learning management system, can enhance metalinguistic awareness and promote learner autonomy. Curriculum designers should also develop diagnostic tasks that isolate high-frequency decoding errors for targeted remediation.

Solutions to Preposition Usage Errors in Arabic Writing

To address errors in preposition usage within Arabic writing, educators can implement several effective strategies. One essential approach is the explicit teaching of prepositions, which entails offering clear explanations of their functions and correct usage, supported by illustrative examples. For instance, students should learn that "لأن" (*li-anna*) means "because" and is used to indicate causation, as in "لها دور كبير لأنها لغة القرآن" (*labā daurun kabirun li-'annabā luġat al-qur'ān*). Contextual practice exercises can further reinforce this knowledge by prompting students to fill in missing prepositions in sentences, such as inserting "بسبب" (*bisabab*) in "وتأثر باللغة الأخرى" (*wa ta'athhara bi-al-luġah al-'ukhrā*) to correctly convey "because of." Regular error analysis and correction sessions can help students identify and rectify their own mistakes, thereby reinforcing learning

through active engagement.³³ Visual aids like charts and diagrams can also be beneficial, providing clear illustrations of the relationships between prepositions and the words they govern. Interactive activities such as role-playing and dialogue creation offer practical application opportunities, encouraging the active use of language in meaningful contexts. Offering timely and targeted feedback on written assignments, along with encouraging students to revise their work accordingly, is essential for helping them recognize their errors and enhance their use of prepositions.³⁴ These strategies collectively aim to ensure that students not only grasp the rules governing prepositions but also apply them correctly to convey precise and accurate meanings in their writing.

Conclusion

This study highlights the significant impact of techno-linguistic decoding errors in Arabic writing assessments, particularly within Alikhtibar LMS, where digital platforms are increasingly utilized for evaluating language proficiency. The findings reveal that errors in preposition usage are the most common, followed by noun agreement mistakes, redundancy, and verb conjugation errors. These issues highlight the complexities of Arabic grammar in digital assessments, exposing shortcomings in both student language proficiency and the accuracy of technological evaluations. These findings are particularly relevant for Arabic language educators, assessment designers, and educational technologists. For instructors, understanding decoding error patterns can inform instructional planning and targeted feedback. For system designers, insights from this study may guide the development of more linguistically sensitive LMS features that align with the complexities of Arabic script.

The research confirms that preposition usage errors (30 occurrences) are the most critical issue affecting writing accuracy, while verb conjugation errors (15 occurrences) are relatively less frequent. These results suggest that targeted teaching strategies, combined with context-aware technological tools, are essential for improving the precision of Arabic writing assessments. Given the limitations of current automated assessment systems, this study emphasizes the need for improved NLP-based tools capable of detecting and delivering intelligent feedback on Arabic grammatical structures. Additionally, the findings highlight the importance of curriculum frameworks that incorporate writing diagnostics alongside digital feedback loops, enabling students to progressively refine their writing. Teacher training programs should also prepare educators to interpret

³³ Panthayil B Rajan, "Exploring Arabic Learners' English Errors: Interlingual vs. Intralingual Analysis and Remedial Teaching Strategies," *Academicus International Scientific Journal* 30 (2024): 126–37, <https://doi.org/10.7336/academicus.2024.30.09>.

³⁴ Nattwut Jinowat and Watcharapol Wiboolyasarin, "Investigating Learner Preferences For Written Corrective Feedback In A Thai Higher Education Context," *Teflin Journal* 33, no. 2 (2022): 386–402, <https://doi.org/10.15639/teflinjournal.v33i2/386-402>.

error analytics from learning management systems and apply them effectively in their teaching practices. Policymakers and education administrators are encouraged to consider the integration of adaptive assessment tools in national digital literacy strategies, especially in Arabic-speaking or Islamic education contexts.

Moreover, the integration of qualitative descriptive analysis and thematic coding provides a comprehensive insight into the nature of Arabic writing errors, offering valuable implications for educators, language developers, and digital learning platforms. The study calls for a more adaptive, AI-assisted linguistic framework in Arabic assessments to bridge the gap between technological advancements and linguistic accuracy. However, this study is limited by its dependence on a single institutional LMS and a sample drawn from one university, which may restrict the generalizability of its findings. Moreover, although qualitative coding was applied rigorously, future research could benefit from mixed-method approaches that combine corpus linguistics with machine learning-based error classification to improve robustness. Expanding the scope to include diverse educational settings and comparative LMS platforms could yield richer insights. Future research should explore AI-driven solutions, corpus-based linguistic analysis, and automated feedback mechanisms to further optimize digital Arabic writing evaluations and enhance student proficiency.

References

- Aflisia, Noza, Kasmantoni, and Yunika Febri Yanti. "Writing Errors: A Study of Students Linguistic Errors in Insyah Muwajjah Learning." *An Nabighob* 26, no. 1 (June 14, 2024): 79–96. <https://doi.org/10.32332/ANNABIGHOH.V26I1.79-96>.
- Alderete, John. "Cross-Linguistic Trends in Speech Errors: An Analysis of Sub-Lexical Errors in Cantonese." *Language and Speech* 66, no. 1 (March 1, 2023): 79–104. <https://doi.org/10.1177/00238309211071045>.
- Alhaisoni, Eid M., Khalid M. Al-Zuoud, and Daya Ram Gaudel. "Analysis of Spelling Errors of Beginner Learners of English in the English Foreign Language Context in Saudi Arabia." *English Language Teaching* 8, no. 3 (February 13, 2015): 185–92. <https://doi.org/10.5539/elt.v8n3p185>.
- Al-Hamzi, Ali Mohammed Saleh, Mangatur Nababan, Riyadi Santosa, Djatmika, Sumarlam, and Henry Yustanto. "Frequent Linguistic Errors in the Writing of Yemeni EFL Arabic-Speaking Learners." *Studies in English Language and Education* 10, no. 1 (2023): 350–68. <https://doi.org/10.24815/siele.v10i1.26022>.
- Al-Zubeiry, Hameed. "Coherence Problems in the English Writings of Saudi University Students." *Journal of Umm Al-Qura University for Language Sciences and Literature*, 2020. <https://doi.org/10.54940/1134876557>.

- Amat, Eleonor, John K Tejada, and Ramil Ilustre. "Content-Based and Task-Based Language Teaching in L2 Classroom." *Journal of English Language Teaching and Applied Linguistics* 4, no. 3 (2022): 24–34. <https://doi.org/10.32996/jeltal.2022.4.3.3>.
- Anwar, Muhammad R. "AI-Powered Arabic Language Education in the Era of Society 5.0." *Iaic Transactions on Sustainable Digital Innovation (Itsdi)* 5, no. 1 (2023): 50–57. <https://doi.org/10.34306/itsdi.v5i1.607>.
- Chen, Hua. "Innovative Approaches in English Language Teaching: Integrating Communicative Methods and Technology for Enhanced Proficiency." *Communications in Humanities Research* 32, no. 1 (2024): 214–20. <https://doi.org/10.54254/2753-7064/32/20240075>.
- Deiparine, Marcelina S., Matthew G. Montalla, and Remedios C. Bacus. "Uncovering the Common Linguistic Errors in Student Journalists" Unedited News Articles: A Comprehensive Analysis." *World Journal of English Language* 14, no. 4 (July 1, 2024): 131–42. <https://doi.org/10.5430/wjel.v14n4p131>.
- Eltahir, Mohd. Elmagzoub, Najeh Rajeh Alsalhi, Sami Al-Qatawneh, Hatem Alqudah, and Mazan Jaradat. "The Impact of Game-Based Learning (GBL) on Students' Motivation, Engagement and Academic Performance on an Arabic Language Grammar Course in Higher Education." *Education and Information Technologies* 26, no. 3 (2021): 3251–78. <https://doi.org/10.1007/s10639-020-10396-w>.
- Fadhlan, Muhammad, Uril Bahruddin, Ahmad Fikri, Nur Y S Mustaqim, and Abdul Muid. "Linguistic Error in Writing Arabic on Students of Pondok Pesantren Al-Muhsinin Kerinci." *Abjadia International Journal of Education* 6, no. 1 (2021): 56–70. <https://doi.org/10.18860/abj.v6i1.11888>.
- Ismail, Moh. "Design Objective Tests Using the Computer Program in Developing the Arabic Language for Non-Native Speakers." *At-Ta'dib* 14, no. 2 (December 19, 2019): 1. <https://doi.org/10.21111/at-tadib.v14i2.4824>.
- Ismail, Moh., Fairuz Subakir Ahmad, and Muhammad Alamuddin Ma'ruf. "The Impact of Learning Management System 'Arabi.Id' Web-Based Application on Developing Arabic Language Skills." *Al-Ta'rib: Jurnal Ilmiah Program Studi Pendidikan Bahasa Arab IAIN Palangka Raya* 11, no. 2 (December 8, 2023): 213–32. <https://doi.org/10.23971/altarib.v11i2.6591>.
- Ismail, Moh., and Aufa Musthafa Alfian. "Pengembangan Materi Tes Keterampilan Menyimak Bahasa Arab Menggunakan Moodle Untuk Meningkatkan Kemampuan Menyimak Mahasiswa Universitas Darussalam Gontor" 13, no. 2 (2018). <https://doi.org/10.21111/at-tadib.v13i2.2467>.
- Ismail, Moh., Muh Kemal Fikri, Salman Al Farisi, and Universitas Darussalam Gontor. "Electronic Mind Map in the Development of Educational Tools in the Science of Information in the Fourth-Semester Students" 7, no. 2 (2024). <https://doi.org/10.31943/afkarjournal.v7i2.1194>.

- Jendli, Adel, and Mohammed Albarakati. "Exploring Motivational Dynamics: The Role of Oral Activities in Improving Arab Students' Learning of English." *International Journal of Learning, Teaching and Educational Research* 23, no. 3 (March 1, 2024): 131–49. <https://doi.org/10.26803/ijlter.23.3.7>.
- Jinowat, Nattwut, and Watcharapol Wiboolyasarin. "Investigating Learner Preferences For Written Corrective Feedback In A Thai Higher Education Context." *Teflin Journal* 33, no. 2 (2022): 386–402. <https://doi.org/10.15639/teflinjournal.v33i2/386-402>.
- Khateeb, Ahmed A. "Learners' Writing Errors in Foreign Languages: Arabic and English as Examples." *Humanities and Management Sciences - Scientific Journal of King Faisal University*, 2022, 1–6. <https://doi.org/10.37575/h/lng/220016>.
- Kumar, Tribhuwan, Sayama Malabar, Ahmed Benyo, and Bakhrul K Amal. "Analyzing Multimedia Tools and Language Teaching." *Linguistics and Culture Review* 5, no. S1 (2021): 331–41. <https://doi.org/10.21744/lingcure.v5ns1.1400>.
- López, Marisela Bonilla, Elke Van Steendam, Dirk Speelman, and Kris Buyse. "Comprehensive Corrective Feedback in Foreign Language Writing: The Response of Individual Error Categories." *Journal of Writing Research* 13, no. 1 (2021): 31–70. <https://doi.org/10.17239/JOWR-2021.13.01.02>.
- Mahmudi, Ihwan, Moh. Ismail, Neng Rosi Resmalasari Dewi, Nailul Istibsyaroh, Herlinda Sofyan Islamanda, and Aisya Rahma El-Fani. "Designing An Arabic Vocabulary Test Based On The Actfl (American Council On The Teaching Of Foreign Languages) Standards For The Novice Level." *Abjadia : International Journal of Education* 9, no. 3 (December 16, 2024): 759–66. <https://doi.org/10.18860/abj.v9i3.29055>.
- Moghazy, Mohamed. "Linguistic Analysis of Some Errors of Arabic-Turkish Writing: A Case Study of Arabic Learner in Dubai." *International Journal of Linguistics Literature and Translation*, 2021. <https://doi.org/10.32996/ijllt.2021.4.5.14>.
- Nangle, Benjamin M., Jorge López Parreño, Conor M. Nangle, Giedrė Valūnaitė Oleškevičienė, and Dalia Gulbinskienė. "An Analysis of the Most Common L1 Interference Grammar, Vocabulary and Syntax Errors of Lithuanian Learners in Written English." *Sustainable Multilingualism* 24, no. 1 (June 1, 2024): 79–105. <https://doi.org/10.2478/sm-2024-0004>.
- Noor, Abidah Aqilah Binti Mohd, and Anuar Bin Sopian. "Correlation Between Level of Grammar Proficiency and Arabic Speaking Skills of Diploma Students at UTM." *International Journal of Academic Research in Business and Social Sciences*, 2023. <https://doi.org/10.6007/ijarbss/v13-i4/16630>.
- Rajan, Panthayil B. "Exploring Arabic Learners' English Errors: Interlingual vs. Intralingual Analysis and Remedial Teaching Strategies." *Academicus International Scientific Journal* 30 (2024): 126–37. <https://doi.org/10.7336/academicus.2024.30.09>.

- Rufaiqoh, Elok. "Jacob's Analytical Assessment in the Evaluation of Arabic Writing Skills at Madrasah Aliyah Negeri Program Keagamaan." *Alsinatuna* 9, no. 1 (2023): 29–40. <https://doi.org/10.28918/alsinatuna.v9i1.1913>.
- Rufaiqoh, Elok, Sutaman Sutaman, Zakiyah Arifa, Nahla I E Ibrahim, and Hasyim Asy'ari. "Jacob's Analytical Assessment in the Evaluation of Arabic Writing Skills at Madrasah Aliyah Negeri Program Keagamaan." *Alsinatuna* 9, no. 1 (2023): 29–40. <https://doi.org/10.28918/alsinatuna.v9i1.1913>.
- Şişianu, Ala, and Ala Puşcaşu. "New Technologies and Foreign Language Learning: Transforming Language Education." *Journal of Social Sciences* 7, no. 1 (2024): 91–99. [https://doi.org/10.52326/jss.utm.2024.7\(1\).07](https://doi.org/10.52326/jss.utm.2024.7(1).07).
- Wahyuni, Wahyuni. "Analyzing Spelling Errors and Benefiting From Them to Develop a Spelling Exercise Booklet Based on Constructivist Theory." *Arabiyat Jurnal Pendidikan Bahasa Arab Dan Kebahasaaraban* 10, no. 2 (2023): 269–82. <https://doi.org/10.15408/a.v10i2.35815>.
- Zeng, Jinghan. "The Application of Linguistry on International Chinese Education Supported by Information Technology." *Advances in Education Humanities and Social Science Research* 7, no. 1 (2023): 265. <https://doi.org/10.56028/aehssr.7.1.265.2023>.
- Zhang, Haiwei, and Leah Roberts. "The Influence of L1 Script Directionality and L2 Proficiency on Hanzi Learning Among Arabic and English Learners of L2 Chinese." *Iral - International Review of Applied Linguistics in Language Teaching*, 2021. <https://doi.org/10.1515/iral-2018.0330>.
- Zulacha, Zulacha. "Writing Composition Problem in Arabic Language Learning Among Arabic Language Education Students." *Langkawi Journal of the Association for Arabic and English*, 2022. <https://doi.org/10.31332/lkw.v0i0.3399>.