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Roblox as a Creative Learning Medium for Developing *Maharah al-Kalam* within an Outcome-Based Education Framework / *Roblox* sebagai Media Pembelajaran Kreatif untuk Mengembangkan *Maharah al-Kalam* dalam Kerangka *Outcome-Based Education*

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Abstract: Outcome-Based Education (OBE) requires Arabic language instruction in higher education to emphasize authentic performance and learner-centred learning. This study describes the use of Roblox as a creative learning medium for *maharah al-kalam* instruction within an OBE framework at Universitas Muhammadiyah Surabaya. A qualitative descriptive approach was employed involving 40 undergraduate students. Data were collected through classroom observations, documentation of digital learning projects, and students' written reflections, and analyzed using the interactive model of Miles, Huberman, and Saldana. The findings show that Roblox created an authentic communicative environment in which students collaboratively designed virtual contexts, developed Arabic dialogues, and produced multimodal speaking performances through avatar interaction and voice dubbing. The study provides qualitative evidence of the pedagogical potential of Roblox to support contextual, project-based maharah al-kalam learning aligned with OBE principles in higher education.

Abstrak: *Outcome-Based Education (OBE)* menuntut pembelajaran bahasa Arab di perguruan tinggi berorientasi pada capaian kinerja autentik dan pembelajaran yang berpusat pada mahasiswa. Penelitian ini bertujuan mendeskripsikan pemanfaatan *Roblox* sebagai media pembelajaran kreatif dalam pembelajaran *maharah al-kalam* berbasis OBE di Universitas Muhammadiyah Surabaya. Penelitian menggunakan pendekatan deskriptif kualitatif dengan melibatkan 40 mahasiswa. Data dikumpulkan melalui observasi pembelajaran, dokumentasi proyek pembelajaran digital, dan refleksi tertulis mahasiswa, kemudian dianalisis menggunakan model interaktif Miles, Huberman, dan Saldana. Hasil penelitian menunjukkan bahwa *Roblox* menciptakan lingkungan komunikasi yang autentik, di mana mahasiswa secara kolaboratif merancang konteks virtual, menyusun dialog bahasa Arab, dan menghasilkan performa berbicara multimodal melalui interaksi avatar dan *voice dubbing.* Temuan penelitian memberikan bukti kualitatif mengenai potensi pedagogis *Roblox* dalam mendukung pembelajaran maharah al-kalam yang kontekstual, berbasis proyek, dan selaras dengan prinsip *Outcome-Based Education.*

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Introduction

The implementation of Outcome Based Education (OBE) has fundamentally transformed the paradigm of higher education from knowledge transmission toward the achievement of measurable learning outcomes demonstrated through authentic student performance. Within this framework, the effectiveness of teaching is no longer determined by the quantity of content delivered by lecturers but by students' ability to demonstrate knowledge, skills, and attitudes in meaningful academic and professional contexts. Consequently, OBE requires constructive alignment among intended learning outcomes, instructional strategies, learning activities, and assessment practices to ensure that graduates acquire competencies relevant to the demands of contemporary society.

Despite its widespread adoption, empirical evidence from Indonesian higher education indicates that many lecturers continue to encounter substantial challenges in translating outcome statements into authentic learning experiences and performance based assessment. Difficulties in designing measurable learning outcomes, developing appropriate instructional strategies, and implementing authentic assessment remain significant barriers to successful OBE implementation, suggesting that curriculum reform alone is insufficient without corresponding pedagogical innovation.[1]

Within this context, Arabic language instruction in higher education continues to face substantial pedagogical challenges. Although many universities have formally adopted OBE based curricula, instructional practices remain predominantly focused on the mastery of linguistic knowledge, including *nahwu* (grammar), *sharf* (morphology), and *mufradat* (vocabulary), while the development of communicative competence has received comparatively limited attention. Consequently, many students possess adequate theoretical knowledge of Arabic but experience considerable difficulty applying the language in authentic academic communication and real life interaction. This situation reveals a clear discrepancy between the performance oriented philosophy of OBE and instructional practices that continue to emphasize knowledge acquisition rather than communicative language use.

Among the four language skills, maharah al kalam occupies a pivotal position because it reflects learners' ability to integrate vocabulary, grammatical knowledge,

[1] Restu Mufanti, Don Carter, and Neil England, "Social Sciences & Humanities Open Outcomes-Based Education in Indonesian Higher Education : Reporting on the Understanding , Challenges , and Support Available to Teachers," *Social Sciences & Humanities Open* 9 (2024): 100873, https://doi.org/10.1016/j.ssaho.2024.100873.

pronunciation, and communicative strategies into meaningful oral interaction. Speaking proficiency therefore represents one of the most observable indicators of successful Arabic language learning. From the perspective of andragogy, this competency is particularly significant because university students, as adult learners, require authentic learning experiences that enable them to express ideas, solve communication problems, and construct knowledge through meaningful social interaction. Accordingly, the development of maharah al kalam should extend beyond repetitive drills and memorized dialogues toward contextual learning experiences that encourage students to employ Arabic as a functional medium of communication rather than merely as an academic subject.

Recent advances in digital technology have created significant opportunities to address these instructional challenges. An increasing body of research demonstrates that the integration of artificial intelligence, interactive multimedia, gamification, and digital game based learning enhances learners' motivation, engagement, participation, and language achievement. A recent systematic review synthesizing studies published between 2023 and 2025 concluded that technology integration consistently promotes learner engagement, self directed learning, and curriculum relevance in Arabic language education while supporting pedagogical innovation responsive to twenty first century educational demands.[2] Likewise, Almelhes' systematic review found that gamification significantly improves learners' motivation, vocabulary acquisition, grammatical competence, and overall language performance among learners of Arabic as a foreign language.[3] Collectively, these findings demonstrate that technology enriched learning environments can transform Arabic language instruction from teacher centered knowledge transmission into interactive, contextual, and learner centered educational experiences that are more consistent with both OBE and adult learning principles.

Previous studies have consistently demonstrated that digital innovation has become an important catalyst for improving the quality of Arabic language instruction in higher education. Rather than functioning solely as supporting instructional tools, digital technologies increasingly facilitate authentic learning experiences that encourage

[2] Mior Syazril et al., "Social Sciences & Humanities Open Integrating Technology into the Arabic Language Curriculum : A Systematic Review of Trends , Strategies and Cultural Dimensions," *Social Sciences & Humanities Open* 12 (2025): 101974, https://doi.org/10.1016/j.ssaho.2025.101974.

[3] Sultan A Almelhes, "Gamification for Teaching the Arabic Language to Non-Native Speakers : A Systematic Literature Review," *Frontiers in Education* 9 (2024): 1–11, https://doi.org/10.3389/feduc.2024.1371955.

students to participate actively in constructing knowledge, collaborating with peers, and applying language skills within meaningful contexts. This pedagogical transformation is particularly relevant to Arabic language education, where communicative competence requires continuous interaction, contextual practice, and active learner engagement. Consequently, the effectiveness of technology integration should be viewed not merely from the perspective of media utilization but from its capacity to create learning environments that foster authentic language production and meaningful communication.[4]

This perspective is consistent with recent developments in Arabic language education, which increasingly emphasize the role of digital technology in creating meaningful and learner centered instructional experiences. Evidence suggests that deep learning based digital quizzes foster more engaging and meaningful learning in Arabic morphology by increasing student participation, encouraging active engagement, and facilitating reflective learning through technology supported assessment. Beyond improving cognitive achievement, such digital innovations also promote learning experiences that correspond to the characteristics of adult learners and the principles of Outcome Based Education.[5] Furthermore, the integration of the linguistic landscape approach within project based learning has been shown to enhance students' Arabic writing skills by positioning learners as active constructors of meaning through authentic interaction with their surrounding environment. These findings reinforce the view that meaningful language learning is more effectively achieved when students actively construct knowledge through authentic experiences rather than passively receiving instructional content.[6]

Beyond Arabic language education, recent developments in educational technology also demonstrate the growing potential of immersive virtual environments for supporting higher order learning. Virtual worlds enable learners to explore realistic situations, collaborate with peers, solve contextual problems, and construct knowledge through experiential learning. A systematic review conducted by Han, Liu, and Gao

[4] Syazril et al., "Social Sciences & Humanities Open Integrating Technology into the Arabic Language Curriculum : A Systematic Review of Trends , Strategies and Cultural Dimensions"; Almelhes, "Gamification for Teaching the Arabic Language to Non-Native Speakers : A Systematic Literature Review."

[5] Cahya Muslimah, Anwar Sanusi, and Dadang Firdaus, "Deep Learning Based Digital Quizzes as A Pathway to Joyful and Meaningful Morphology Learning" 8.2 (2025): 226–39, https://doi.org/10.26555/insyirah.v8i2.14446.

concluded that Roblox supports multimodal learning, collaborative interaction, creativity, and participatory knowledge construction across various educational settings. Rather than functioning exclusively as a gaming platform, Roblox provides opportunities for learners to design virtual environments, develop digital narratives, and participate actively in authentic learning experiences. Similarly, Alhasan and colleagues argued that immersive virtual environments are increasingly relevant for higher education because they encourage learner autonomy, creativity, and collaborative problem solving while aligning with the characteristics of digitally native university students.[7]

Despite these encouraging findings, existing studies reveal a common pedagogical orientation. Most investigations continue to position students primarily as users of digital learning media developed by teachers, researchers, or software developers. Research has predominantly focused on evaluating the effectiveness of instructional media in improving learning outcomes, motivation, engagement, or language achievement. Comparatively little attention has been devoted to instructional designs in which students themselves create digital learning environments as part of the learning process. Consequently, the pedagogical potential of student generated digital media remains insufficiently explored, particularly in Arabic language learning where authentic communication constitutes the ultimate instructional objective.

This research gap is especially significant within the framework of Outcome Based Education and andragogy. OBE requires students to demonstrate authentic performance through observable learning products, while andragogy emphasizes learner autonomy, experiential learning, and self directed knowledge construction. Positioning students merely as users of instructional technology does not fully accommodate these principles because learners remain dependent upon environments created by others. Conversely, engaging students as designers and creators of learning media allows them to integrate linguistic competence, creativity, collaboration, critical thinking, and reflective practice within a single authentic learning activity. Such an approach shifts the

[6] Kiki Cahya Muslimah, et al. "Linguistic landscape in arabic writing skills learning: Project-based learning approach." *Izdihar: Journal of Arabic Language Teaching, Linguistics, and Literature* 7.2 (2024): 231-248.

[7] Jining Han, Geping Liu, and Yuxin Gao. "Learners in the Metaverse: A systematic review on the use of roblox in learning." *Education Sciences* 13.3 (2023): 296. https://doi.org/https://doi.org/10.3390/educsci13030296; Alhasan, Khaled, and Khawla Alhasan. "Roblox in higher education: Opportunities, challenges, and future directions for multimedia learning." *International Journal of Emerging Technologies in Learning (IJET)* 18.19 (2023): 32-46. https://doi.org/10.3991/ijet.v18i19.43133.

instructional paradigm from media utilization toward media creation, thereby strengthening the alignment between learning activities and intended learning outcomes.

Unlike previous studies, the present research conceptualizes Roblox not simply as a digital instructional medium but as a student generated creative environment for developing maharah al kalam. Students are responsible for designing virtual settings, constructing characters, writing Arabic dialogues, and producing Arabic voice dubbing based on communicative situations they create independently. In this learning model, students simultaneously function as instructional designers, digital content creators, and language producers. Consequently, Arabic is learned not as an object of memorization but as a living medium of communication embedded within authentic visual narratives designed by the learners themselves.

Accordingly, the novelty of this study lies not in the adoption of Roblox as a digital platform, but in the introduction of a student generated creative media approach that integrates Outcome Based Education, andragogy, and immersive digital technology within maharah al kalam instruction. Theoretically, this study extends the discourse on technology enhanced Arabic language learning by shifting the pedagogical focus from media consumption toward media creation. Pedagogically, it offers an alternative instructional design that encourages university students to become creators of authentic communicative environments while simultaneously demonstrating measurable speaking performance. Based on this rationale, the present study aims to describe the implementation of Roblox as a creative medium for developing maharah al kalam in Arabic language learning at Universitas Muhammadiyah Surabaya and to explain its contribution to adult learners' learning experiences within the framework of Outcome Based Education and andragogy.

Methods

This study employed a qualitative descriptive design using a naturalistic classroom approach to explore how Roblox functioned as a creative medium for developing students' maharah al-kalam in Arabic language learning. The study was embedded in regular classroom instruction without experimental manipulation, allowing students' learning experiences and speaking performance to be examined within an authentic educational setting. The project was implemented in an Arabic Language course at Universitas Muhammadiyah Surabaya during the odd semester of the 2025–

2026 academic year as part of an Outcome-Based Education (OBE) curriculum emphasizing authentic performance tasks.[8]

The participants were 40 undergraduate students enrolled in the Arabic Language course. They were organized into five heterogeneous groups based on their Arabic proficiency and digital skills. Eligible participants attended the course regularly, completed the collaborative speaking project, and provided informed consent for the use of their learning products and reflections.[9]

The project was conducted throughout one semester in five stages: (1) project orientation, (2) collaborative design of communicative contexts and dialogue scripts, (3) multimedia production using Roblox, (4) classroom presentation and speaking performance, and (5) reflective evaluation. Students collaboratively created Arabic dialogue videos by designing virtual environments, developing dialogue scripts, recording voice dubbing, and presenting their projects in class. Before production, all dialogue scripts were reviewed by the course lecturer to ensure linguistic and pragmatic appropriateness while preserving students' creative ownership of the projects.

Students' speaking performance was interpreted using a qualitative performance rubric adapted from Tu'aimah's framework of Arabic speaking competence.[10] The documentary evidence included validated dialogue scripts, classroom observation notes, the Semester Learning Plan, project guidelines, and four digital learning products (three Roblox-based videos and one animated video). Twenty individual reflective journals were analyzed to explore students' perceptions of the learning process.

Students' speaking performance was interpreted using a qualitative performance rubric adapted from Tu'aimah's framework of Arabic speaking competence. The rubric comprised five dimensions: fluency, accuracy, vocabulary, sentence structure, and pragmatic appropriateness. Rather than generating numerical scores, the rubric served as an interpretive framework for identifying recurring patterns of speaking performance during the initial classroom observation and the final project presentation.

Data were analyzed using the interactive model of Miles, Huberman, and Saldaña, consisting of data condensation, data display, and conclusion drawing and

[8] Kim, H., Sefcik, J.S. and Bradway, C. Characteristics of Qualitative Descriptive Studies: A Systematic Review. *Res Nurs Health,* 40 (2017): 23-42. https://doi.org/10.1002/nur.21768; Cheryl N. Poth John W. Cresswell, "Qualitative Inquiry and Research Design FIFTH," 2024, 1–6.
[9] John Biggs, *Teaching for Quality Learning at University Assessing for Learning Quality : II . Practice* (Buckingham: SRHE and Open University Press, 1999).

verification. Findings from observations, dialogue scripts, digital products, and reflective journals were triangulated to identify recurring themes and construct comprehensive descriptions of students' maharah al-kalam development.

The trustworthiness of the findings was established through methodological triangulation and investigator triangulation.[11] Evidence from classroom observations, students' reflections, dialogue scripts, and digital learning products was continuously compared to ensure consistency across data sources. Students' speaking performance was independently reviewed by two raters the course lecturer and an Arabic language education lecturer using the same qualitative performance rubric. Any differences in interpretation were resolved through discussion until consensus was reached. An audit trail documenting research procedures and analytical decisions was maintained to enhance the dependability and confirmability of the findings, while detailed descriptions of the research context support the transferability of the study.

Results and Discussion

The Patterns of Roblox-Based Maharah al-Kalam Assignments in Arabic Language Learning

Analysis of classroom observations, documentation of students' digital learning products, and written reflections indicated that the implementation of Roblox-based maharah al-kalam assignments followed a systematic instructional sequence throughout one academic semester. Although the students produced different digital products, the learning process consistently evolved through interconnected stages consisting of project orientation, collaborative design of communicative contexts, multimedia production, classroom presentation, and reflective evaluation. These recurring instructional stages suggest that, within this instructional context, Roblox functioned as more than a digital platform, serving as a pedagogical environment that supported collaborative language production and authentic speaking practice.

During the initial orientation, students were introduced to the learning outcomes, project procedures, and assessment expectations before beginning the speaking project. Classroom observations showed that students were encouraged to construct their own communicative situations instead of relying on ready-made dialogue scripts. The

[10] رشدي أحمد طعيمة ,تعليم العربية لغير الناطقين بها: مناهج وأساليبها (مصر: جامعة المنصور, ١٩٨٩).

[11] Yvonna S Lincoln and Egon G Guba, *Naturalistic Inquiry* (SAGE Publications, 1985).

conversational themes developed by the five groups reflected situations closely related to students' daily experiences, including campus interactions, public services, social communication, and everyday conversations. This thematic diversity illustrates that students actively contextualized Arabic language use within situations that were meaningful to their own learning experiences.

The collaborative design process further revealed that students simultaneously negotiated linguistic and visual elements while constructing their projects. Observation notes indicated that discussions frequently centered on selecting appropriate vocabulary, refining sentence structures, determining suitable expressions, and matching these linguistic choices with the virtual environments created through Roblox. Rather than functioning solely as technical preparation, collaborative planning became an opportunity for students to construct meaning collectively before producing spoken language. Similar patterns have been reported in studies of digital game-based language learning, which emphasize that collaborative design activities encourage learners to engage more actively in authentic language production.[12]

The multimedia production stage represented the most intensive speaking practice throughout the project. Students repeatedly rehearsed pronunciation, intonation, fluency, and role distribution before recording their Arabic voice dubbing. Classroom observations showed that peer feedback occurred naturally during this process, particularly when students identified pronunciation inaccuracies, suggested more appropriate vocabulary, or revised dialogue structures to improve communicative effectiveness. These iterative revisions provided opportunities for students to refine pronunciation, vocabulary choice, and dialogue organization before producing the final recordings.



Figure 1. Students' creative works using the Roblox game



Figure 2. Demonstration of Arabic speaking skills through voice dubbing in video-based tasks with Indonesian subtitles

[12] Daniel H Dixon, "Second Language (L2) Gains through Digital Game- Based Language Learning (DGBLL): A Meta-Analysis," *Language Learning & Technology* 26.1 (2022): 1–25, https://doi.org/https://doi.org/10.64152/10125/73464.

Following the development of the virtual learning environments, students presented their final projects through voice-dubbing performances integrated into the Roblox platform. Figure 1 illustrates representative examples of the creative virtual environments produced by the student groups, while Figure 2 demonstrates how these environments were used to support Arabic speaking performances through synchronized voice dubbing accompanied by Indonesian subtitles. Together, these figures provide visual evidence that the learning activities extended beyond conventional speaking practice by integrating contextual dialogue, digital creativity, collaborative interaction, and oral language production into a single project-based learning experience.

Classroom observations indicated that students demonstrated learner autonomy in several stages of the project. Rather than receiving predetermined dialogue scripts or fixed communicative scenarios, each group independently selected conversation topics, designed virtual settings, developed dialogue scripts, assigned speaking roles, and refined their multimedia products through repeated rehearsal and revision. The lecturer primarily functioned as a facilitator who provided pedagogical guidance, linguistic feedback, and technical assistance when necessary, while the responsibility for planning, producing, and evaluating the learning products remained largely in the hands of the students.

The instructional pattern positioned learners as active participants in constructing communicative experiences rather than reproducing instructor-provided language models. Such learner-centred project environments have been reported to increase students' engagement and communicative participation by positioning them as creators of learning rather than passive recipients of instructional content.[13]

The instructional sequence concluded with classroom presentations and reflective evaluation. Each group presented its completed project and explained the communicative scenarios represented in the digital media. During these presentations, students demonstrated not only their speaking ability but also their understanding of contextual language use. Analysis of classroom observations and students' reflections suggests that integrating visual storytelling, collaborative dialogue construction, and repeated oral

[13] Mahjabin Chowdhury et al., "Digital Game-Based Language Learning for Vocabulary Development," *Computers and Education Open* 6, (2024): 100160, https://doi.org/10.1016/j.caeo.2024.100160; Yunxiang Zheng et al., "Heliyon Effects of Digital Game-Based Learning on Students ' Digital Etiquette Literacy , Learning Motivations, and Engagement," *Heliyon* 10.1 (2024): e23490, https://doi.org/10.1016/j.heliyon.2023.e23490.

rehearsal created meaningful opportunities for authentic language production throughout the project.

Students' *Maharah al-Kalam* Performance

Students' speaking performance was interpreted using the qualitative performance rubric described in the Methods section. The rubric examined five complementary dimensions of maharah al-kalam, namely fluency, accuracy, vocabulary, structure, and pragmatic appropriateness. These dimensions were interpreted qualitatively through classroom observations, students' digital learning products, validated dialogue scripts, and written reflections collected during the implementation of the project. Rather than producing numerical scores, the rubric functioned as an interpretive framework for identifying recurring patterns in students' speaking performance across the initial classroom observation and the final project observation.

The qualitative mapping presented in Table 1 summarizes the observable tendencies identified from multiple sources of qualitative evidence. The categories Emerging, Developing, and Accomplished should therefore be understood as descriptive interpretations of students' communicative performance rather than quantitative achievement levels or statistical measurements.

Table 1. Qualitative Performance Mapping of Students' Maharah al-Kalam Development

Speaking Aspect	Indicators	Initial Classroom Observation	Final Project Observation	Qualitative Interpretation
Fluency	Continuity of speech, hesitation, speaking pace	Emerging	Accomplished	Students demonstrated more continuous speech with reduced hesitation and greater confidence during oral communication.
Accuracy	Pronunciation, articulation, linguistic correctness	Developing	Accomplished	Pronunciation and articulation became clearer, although minor phonological inaccuracies remained in several Arabic sounds.
Vocabulary	Lexical variety and contextual appropriateness	Emerging	Developing	Students employed a wider range of vocabulary and selected expressions that better matched

				the communicative situations.
Structure	Sentence organization and grammatical appropriateness	Emerging	Developing	Dialogue construction became more coherent and grammatically appropriate throughout collaborative revision.
Pragmatic appropriate ness	Contextual suitability of expressions, politeness, communicative intent	Emerging	Accomplished	Students increasingly adjusted speech styles, expressions, and intonation according to the communicative contexts represented in their projects.

Source: Qualitative interpretation based on participant observations (one semester), four digital learning products, validated dialogue scripts, and twenty students' written reflections

The qualitative performance mapping demonstrates that observable development occurred across all five dimensions of maharah al-kalam. Rather than indicating statistically significant improvement, the mapping describes recurring qualitative tendencies consistently identified across multiple sources of evidence throughout the learning process.

Among the five dimensions, fluency exhibited the most noticeable qualitative development. During the initial classroom observation, many students experienced frequent pauses, hesitations, and interruptions while attempting to formulate Arabic utterances. Observation notes indicated that students often relied on written prompts and required additional time to organize their ideas before speaking. During the final project presentations, however, students generally produced longer stretches of continuous speech with greater confidence and fewer disruptions. This pattern was consistently reflected in classroom observations, digital recordings, and students' reflective accounts, suggesting that repeated rehearsal during multimedia production contributed to smoother oral communication.

Development was also evident in accuracy, particularly in pronunciation and articulation. Although some students continued to experience difficulties with several Arabic phonemes, repeated practice and lecturer feedback enabled them to produce clearer and more intelligible speech during the final presentations. The observation data

further indicated that students became increasingly aware of pronunciation accuracy during peer discussions, frequently correcting one another before completing the final recordings.

The dimensions of vocabulary and structure likewise demonstrated observable qualitative development. During the initial classroom observation, students tended to employ limited lexical choices and relatively simple sentence patterns. As the project progressed, collaborative dialogue writing encouraged students to explore alternative vocabulary, negotiate contextual expressions, and revise grammatical structures before recording their performances. Analysis of dialogue scripts and presentation recordings showed that students increasingly selected vocabulary appropriate to specific communicative situations while producing more coherent sentence constructions.

The most distinctive pattern emerged in pragmatic appropriateness. Observation notes revealed that students gradually became more capable of adjusting speech styles, expressions, levels of politeness, and intonation according to the communicative situations represented in their digital projects. Rather than merely producing grammatically accurate sentences, students demonstrated greater awareness of how language should be used appropriately within different social contexts. This tendency was particularly evident during role play interactions, where students adapted greetings, requests, responses, and conversational expressions to fit the virtual scenarios they had collaboratively designed.

Overall, the findings indicate that the integration of collaborative digital storytelling, repeated oral rehearsal, and contextual dialogue construction enabled students to demonstrate qualitative development across multiple dimensions of maharah al-kalam. The evidence obtained from classroom observations, students' digital products, dialogue scripts, and reflective writing consistently suggests that Roblox functioned as a creative learning environment supporting authentic Arabic speaking practices rather than merely serving as a technological presentation tool. Recent studies on Arabic digital learning platforms and digital game-based language learning likewise highlight that authentic, collaborative, and technology-mediated learning environments can facilitate productive language use and communicative engagement.[14]

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Learner Agency and Self-Directed Learning

The findings demonstrate that Roblox-based project learning extended students' participation beyond completing speaking assignments by enabling them to exercise agency throughout the learning process. Students independently selected communicative themes, designed virtual environments, developed dialogue scripts, negotiated linguistic expressions, revised oral performances, and evaluated the quality of their final multimedia products. These learning behaviours indicate that students functioned as active decision makers rather than passive recipients of instructional content. In this context, learner agency was manifested through students' capacity to initiate, regulate, and refine their own learning experiences within collaboratively constructed digital environments.

This interpretation expands the traditional concept of learner autonomy proposed by Knowles. While andragogy emphasizes that adult learners prefer to assume responsibility for their learning decisions (Knowles, Holton, and Swanson), recent scholarship argues that learner agency is a broader construct encompassing autonomy, self-regulation, contextual decision-making, and the ability to transform available learning resources into meaningful learning opportunities. Rather than viewing students as independent learners operating in isolation, learner agency recognizes that meaningful learning emerges through continuous interaction between learners, peers, instructors, technological environments, and sociocultural contexts.[15]

The present findings illustrate this broader conception of agency. Students were not merely given freedom to complete assignments; instead, they actively shaped the learning environment itself. Decisions regarding conversation topics, avatar identities, virtual settings, dialogue organization, and multimedia presentation were negotiated collaboratively before being translated into Arabic oral performances. Such activities demonstrate that control over learning was distributed across multiple stages of project development, allowing students to make pedagogical decisions that are rarely available in conventional maharah al-kalam instruction, where learners commonly reproduce dialogues prepared by instructors.

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[14] Mahyudin Ritonga et al., "Duolingo : An Arabic Speaking Skills ' Learning Platform for Andragogy Education," *Hindawi Education Research International* 2022.1 (2022), https://doi.org/10.1155/2022/7090752.

[15] Nidhi Gupta et al., "Beyond Autonomy : Unpacking Self-Regulated and Self-Directed Learning through the Lens of Learner Agency- a Scoping Review," *BMC Medical Education* 24.1 (2024): 1519, https://doi.org/10.1186/s12909-024-06476-x.

Students' reflective journals provide additional evidence supporting this interpretation. One participant stated:

> "The lecturer gave us the freedom to express our own ideas. Since I was already familiar with Roblox, I became much more enthusiastic about learning Arabic through the game." (SR5)

Rather than merely expressing enjoyment, this reflection indicates that students perceived ownership of the learning process. The opportunity to determine how Arabic would be used within self-designed communicative situations strengthened their sense of responsibility for the quality of both the learning process and the final product. Contemporary research on Arabic language education similarly emphasizes that learner autonomy develops when instructional activities redistribute control from teachers to learners while maintaining appropriate pedagogical guidance.[16]

The iterative nature of the Roblox project further reflects principles of self-directed learning. Students repeatedly rehearsed dialogues, revised linguistic expressions, synchronized voice recordings with avatar movements, and voluntarily re-recorded performances without explicit lecturer instruction. These behaviours correspond to the core characteristics of self-directed learning, in which learners identify weaknesses, monitor their own progress, select appropriate improvement strategies, and evaluate learning outcomes independently. Systematic reviews of technology-supported language learning likewise conclude that digital environments facilitate self-directed learning by providing learners with opportunities to plan, monitor, rehearse, and evaluate their own language performance across multiple learning cycles.[17]

Importantly, the findings also suggest that learner agency in this study was socially mediated rather than individually constructed. Students exercised agency through collaborative dialogue writing, peer feedback, role negotiation, and collective problem-solving. Agency therefore emerged not from complete independence but from meaningful participation within a supportive learning community. This perspective aligns with recent qualitative research demonstrating that language learner agency develops

[16] Sultan Almelhes, "Reframing Learner Autonomy in Arabic Language Education for Non-Native Speakers : A Theoretical Framework of Power, Control, and Motivation," *Frontier in Education* 10. (2025): 1–11, https://doi.org/10.3389/feduc.2025.1622527.

[17] Yuzhi Lai, Nadira Saab, and Wilfried Admiraal, *Learning Strategies in Self - Directed Language Learning Using Mobile Technology in Higher Education : A Systematic*, *Education and Information Technologies* (Springer US, 2022), https://doi.org/10.1007/s10639-022-10945-5.

through the interaction of personal initiative, available resources, peer collaboration, and institutional support rather than through individual autonomy alone.[18]

From the perspective of digital game-based language learning, Roblox functioned as more than a technological platform; it acted as a mediating environment that expanded opportunities for learner decision-making. The immersive nature of the virtual world enabled students to transform abstract linguistic knowledge into situated communicative experiences, encouraging experimentation, creativity, and repeated practice within authentic social scenarios. Recent reviews of Roblox-based language learning similarly report that immersive virtual environments enhance learner agency by encouraging contextual language production, collaborative exploration, and sustained engagement in meaningful communicative activities.[19]

Taken together, these findings suggest that the pedagogical value of Roblox lies not primarily in its gaming features but in its capacity to redistribute learning authority. Rather than positioning lecturers as the sole source of knowledge and evaluation, the platform enabled students to become designers, collaborators, evaluators, and performers of their own learning. Consequently, maharah al-kalam instruction shifted from teacher-directed dialogue practice toward a learner-centred model characterized by self-direction, collaborative agency, and authentic communicative production. This shift represents an important contribution to Arabic language pedagogy in higher education, where speaking instruction continues to be dominated by memorization and instructor-controlled interaction despite increasing calls for more autonomous and communicative learning environments.

Digital Game-Based Learning, Multimodal Communication, and Pedagogical Implications

The findings indicate that Roblox functioned as more than a digital gaming platform; it created an authentic communicative environment in which students integrated verbal interaction, visual representation, and collaborative problem-solving into meaningful Arabic communication. Unlike conventional speaking activities that frequently emphasize memorization and isolated dialogue practice, the Roblox-based

[18] Qiuming Lin, Jing Huang, and Qiuming Lin, "Reconceptualizing Language Learner Agency : A Qualitative Inquiry in Interactive Online Classes Interactive Online Classes," *Interactive Learning Environments* 34.4 (2026): 2380–93, https://doi.org/10.1080/10494820.2025.2545951.

projects situated language use within contextualized virtual scenarios, allowing students to communicate through avatars, negotiate meaning with peers, and repeatedly refine their oral production. This authentic integration of language and context reflects the principles of digital game-based learning (DGBL), in which meaningful interaction and learner participation become central mechanisms for language development rather than the technology itself. Recent studies similarly report that DGBL promotes student-centred learning, increases engagement, and encourages more active participation in Arabic communication by providing interactive and enjoyable learning experiences.[20]

Another important finding concerns the multimodal nature of the learning process. Students did not rely solely on spoken language but simultaneously combined dialogue scripts, avatar interaction, virtual environments, voice dubbing, subtitles, and visual storytelling into a single communicative product. This integration enabled learners to connect linguistic knowledge with contextual meaning, making oral communication more purposeful and authentic. Recent research on Roblox and digital game-based language learning likewise suggests that immersive virtual environments encourage learners to produce contextualized language while supporting creativity, collaboration, and communicative competence.[21]

From a pedagogical perspective, the findings suggest that Roblox should not be viewed merely as an instructional medium but as a learning ecosystem that supports Outcome-Based Education (OBE). Students demonstrated the intended learning outcomes through authentic performance tasks involving collaboration, contextual communication, and multimedia production rather than through decontextualized speaking drills. In this respect, the project aligns with current perspectives on communicative language teaching, which emphasize meaningful language use, learner

[19] Zikrina Hidayati, Edi, and Irwandi, "Exploring Roblox as a Social Learning Environment for EFL Vocabulary Learning," *JADEs Journal of Academia in English Education* 7.1 (2026): 142–62, https://doi.org/https://doi.org/10.32505/jades.v7i1.14489.

[20] M. T. A. Ghani et al., "The Impact of Mobile Digital Game in Learning Arabic Language at Tertiary Level," *Contemporary Educational Technology* 14.1 (2022): 1–18; Mohammad Taufiq and Abdul Ghani, "The Impact of Digital Game-Based Learning Towards Arabic Language Communication," *Jurnal Komunikasi: Malaysian Journal of Communication* 39, no. 1 (2023): 407–24, https://doi.org/https://doi.org/10.17576/JKMJC-2023-3901-23.

[21] Siti Jubaidah et al., "Development of A Roblox-Based Interactive Game for Arabic Vocabolary Learning in Islamic Senior High Schools," *Ta ' Lim Al - ' Arabiyyah : Jurnal Pendidikan Bahasa Arab Dan Kebahasaaraban* 10.1 (2026): 1–16, https://doi.org/https://doi.org/10.15575/jta.v10i1.55124; Novita Kartika Sari, A B Prabowo Kusumo Adi, and Sukma Nur Ardini, "Roblox as Media for Students ' Language Output in Daily Conversation," *International Journal of Research in Education* 6.1 (2026): 33–45, https://doi.org/https://doi.org/10.26877/ijre.v6i1.2985.

participation, and authentic assessment as essential components of successful language instruction. Consequently, integrating digital game-based learning into maharah al-kalam instruction offers practical opportunities for Arabic language educators to redesign speaking activities that are more contextual, learner-centred, and responsive to the digital characteristics of contemporary university students. These findings also complement recent systematic reviews recommending game-based learning as an effective pedagogical innovation for Arabic language education because it strengthens learner engagement while supporting communicative competence in technology-enhanced environments.[22]

Limitations and Future Research

This study has several limitations that should be considered when interpreting the findings. First, the research was conducted in a single Arabic language course involving forty undergraduate students at one university, limiting the transferability of the findings to other educational contexts. Second, the study adopted a qualitative descriptive design; therefore, the findings describe students' learning experiences and speaking performance without examining causal relationships or statistically measuring learning gains. Third, although Roblox facilitated authentic communication, the analysis focused primarily on *maharah al-kalam* and did not investigate its potential contribution to other Arabic language skills such as listening, reading, or writing.

Future studies may employ mixed-methods or longitudinal designs to examine the long-term influence of immersive digital game-based learning on Arabic language proficiency. Comparative research involving different educational levels, larger participant groups, and diverse digital platforms would also provide broader evidence regarding the pedagogical value of game-based learning. In addition, future investigations should explore how emerging technologies, including artificial intelligence, speech recognition, and adaptive feedback systems, can be integrated into Roblox-based Arabic learning environments to support personalized language instruction

[22] Hana Zahra et al., "Innovation in Digital Game Media for Arabic Language Learning : Systematic Review and Implementable Framework," *Al Bayan: Jurnal Jurusan Pendidikan Bahasa Arab* 18.1 (2026): 41–62, https://doi.org/10.24042/dnsn2464; Rabail Tahir et al., "Evaluating the Effectiveness of Game-Based Learning for Teaching Refugee Children Arabic Using the Integrated LEAGUÊ-GQM Approach Children Arabic Using the Integrated LEAGUÊ-GQM Approach," *Behaviour & Information Technology* 43.1 (2024): 110–38, https://doi.org/10.1080/0144929X.2022.2156386; Amr Rabie Ahmed, "Collaborative and Individual Vocabulary Learning in the Arabic Classroom : The Role of Engagement and Task Demands," *Foreign Language Annals* 55.4 (2022): 937–1230, https://doi.org/10.1111/flan.12636.

and authentic communicative assessment. Such directions would contribute to the growing body of technology-enhanced Arabic language education and provide stronger empirical evidence for implementing innovative pedagogical practices in higher education.

Conclusion

This study provides qualitative evidence that Roblox has the potential to function as a creative learning medium for *maharah al-kalam* instruction within an Outcome-Based Education (OBE) framework in higher education. The findings indicate that integrating Roblox into project-based speaking activities enabled students to construct communicative contexts collaboratively, engage in repeated oral practice, and produce authentic speaking performances situated in meaningful virtual environments. Rather than serving merely as a technological tool, Roblox functioned as a learning environment that supported learner agency, collaboration, and contextualized language use throughout the instructional process.

From a scholarly perspective, this study contributes to the growing body of research on technology-enhanced Arabic language learning by illustrating how digital game-based environments can support authentic communicative practice and align with OBE principles through performance-based learning activities. Instead of claiming instructional effectiveness, the findings provide empirical insights into the pedagogical potential of Roblox as a creative medium for facilitating *maharah al-kalam* learning in higher education. These findings may serve as a conceptual reference for Arabic language educators seeking to design more learner-centred and contextually meaningful speaking activities.

This study is limited to a qualitative descriptive investigation conducted in a single higher education context; therefore, the findings should be interpreted within this scope. Future research may employ mixed-methods, quasi-experimental, or longitudinal designs involving broader educational contexts to further examine the influence of Roblox-based learning on students' Arabic speaking development and other language competencies.

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