

EXPERT CONSENSUS ON USABILITY ELEMENTS FOR AN *AL-KINAYAH* IN *AL-HADITH AL-SHARIFE*-LEARNING MODULE USING MINECRAFT EDUCATION: A FUZZY DELPHI METHOD ANALYSIS

Muhammad Nur Farhan bin Zamziba¹, Rahmah Binti Ahmad H. Osman^{*2},
Muhammad Anwar Bin Ahmad³ & Rabiatal Fatimah Azzahra Binti Rashid⁴

¹ PhD Student, International Institute of Islamic Thought and Civilization (ISTAC-IIUM),
50480 Kuala Lumpur, Malaysia [ORCID ID [0009-0005-2712-7487](https://orcid.org/0009-0005-2712-7487)]

² Abdul Hamid Abu Sulayman Kulliyah of Islamic Revealed Knowledge and Human Sciences,
International Islamic University Malaysia, 53100 Kuala Lumpur, Malaysia [ORCID ID [0000-0003-2686-0036](https://orcid.org/0000-0003-2686-0036)]

³ Abdul Hamid Abu Sulayman Kulliyah of Islamic Revealed Knowledge and Human Sciences,
International Islamic University Malaysia, 53100 Kuala Lumpur, Malaysia [ORCID ID [0009-0001-4864-9664](https://orcid.org/0009-0001-4864-9664)]

⁴ Centre for Languages and Pre-University Academic Development, Paya Besar, 26300
Gambang, Pahang, Malaysia

*Corresponding author: rahmahao@iium.edu.my

DOI: <https://doi.org/10.17576/turath-2026-1101-10>

Article history

Received: 08/03/2026

Revised: 01/06/2026

Accepted: 09/06/2026

Published: 30/06/2026

Abstract

Traditional approaches to teaching complex literary concepts in prophetic traditions, such as *al-Kinayah* (metaphorical expressions) in *al-Hadith al-Sharif*, often struggle to engage modern learners, highlighting a gap in integrated gamified e-learning frameworks within Islamic studies. To address this, this article is centered on creating an e-learning module for Islamic civilisation education that utilizes Minecraft Education to teach the content of *al-Kinayah* in *al-Hadith al-Sharif*. The module was developed following the Design and Development Research (DDR) model, which included needs analysis, content development, and evaluation of usability. This research focuses on the last stage involved evaluating usability with feedback and observations from twelve Subject Matter Experts (SMEs) to gain insights into the module's usability and engagement using the Fuzzy Delphi Method (FDM). The results confirmed that the experts' consensus was accepted and the Fuzzy scores from this article supported the mean values obtained from expert's judgments, ranging from 0.750 to 0.872 for all items. The findings of this article contribute to the field of e-learning by demonstrating the usability of the DDR model in designing instructional modules that integrate Minecraft educational games as a means for teaching and learning complex literature concepts. The module provides a comprehensive framework for educators interested in incorporating e-learning and gamification elements into Islamic studies and language education.

Keywords: Design and Development, Fuzzy Delphi Method, *al-Hadith al-Sharif*, *al-Kinayah*

INTRODUCTION

The biggest challenge in teaching *al-Hadith al-Sharif* in the 21st century is that many teachers are not ready to integrate ICT into their teaching and learning methods (Kawaid et al., 2018). They prefer the traditional method over e-learning because it may not be suitable for certain groups of learners, the unfamiliarity of the e-learning environment, and the rapid advancements in e-learning technologies (Ahmad et. al, 2025). Instructors often require specific e-learning training before they can effectively transition to this mode of instruction. Furthermore, learners may need additional support such as orientation courses, encouragement, and motivation to adapt to an e-learning environment and complete their activities successfully (Hoque M. et al., 2019).

Additionally, Nasir M. et al. (2021) reviewed trends in hadith studies using digital technology, focusing on e-books, databases, websites, and mobile applications. Their work primarily addresses *matan*, *sanad*, and hadith dissemination, with limited attention to linguistic or rhetorical comprehension. The present study diverges by positioning *al-Hadith al-Sharif* not merely as textual data, but as rhetorical discourse requiring interpretive competence in *Kinayah*. Theoretically, this article fills a gap by integrating Arabic rhetoric pedagogy into digital hadith studies, which existing platforms such as *dorar.net* or *al-Maktabah al-Shamilah* do not address.

Moreover, Mohd Zaidi & Hoque et.al (2019) discussed the prospects and challenges of e-learning in hadith education, highlighting accessibility and engagement issues. However, these studies treat hadith learning primarily as content acquisition. The present research differs theoretically by framing hadith learning as a linguistic-rhetorical interpretive process, and methodologically by validating a game-based module rather than analysing platforms descriptively.

In addition, Kawaid et al. (2018) examined ICT integration in hadith studies in Malaysian universities, focusing on reference tools and databases. While their findings confirm positive attitudes toward ICT, they do not address instructional design or rhetoric pedagogy. The present study complements their findings by demonstrating how ICT can be instructionally structured to teach rhetorical understanding, not merely facilitate access to sources.

Thus, this article has identified digital games as an effective tool for teaching Islamic knowledge to Muslim children. According to a recent study, Islamic digital games have managed to attract the attention of users and stimulate their interest in learning (Aziz, et al., 2019). Additionally, recent studies have also shown improvements in brain function through e-learning methods. Ahmed et al. (2022) denote that “the distribution of the valence and arousal signals from the electroencephalogram (EEG) signals provided by the emotional scatter plots exhibits a clear visual correlation between brain functions and video game designs”.

In addition, recent studies have shown that educational game-based learning (GBL) media is effective because it requires players to participate and contribute in determining the game's outcome (Sandrone & Carlson, 2021). Research indicates that educational games can improve learning outcomes and have a positive effect on creativity, activity, and problem-solving skills (Syaliman et al., 2022).

Therefore, Minecraft Education was selected for this article because of two factors: asynchronous lessons and dynamic elements. The first reason is asynchronous lessons, where teachers can upload materials on the platform for students to access at their own convenience (Izhar et al, 2022). For example, Google Classroom is commonly used in Malaysia as the official Learning Management System (LMS) platform (MOE, 2019). Similarly, Minecraft Education offers asynchronous learning tools because students can engage with the platform at a time that suits them. Furthermore, there is research suggested that an enhancing Arabic language and literature and Islamic studies by using Minecraft Education (Zamziba et al., 2024; Zamziba, et al., 2023).

Secondly, Minecraft Education contains three significant elements that make it an effective learning tool for writing, reading, speaking, and listening skills. The platform is specifically designed for educational purposes, with features built specifically to support collaboration,

assessment, coding, and other learning activities. Furthermore, Minecraft offers over 600 pre-built lessons aligned with educational standards for a comprehensive curriculum experience. Users can even write and submit their own Minecraft lessons. Additionally, Minecraft's support for cross-curricular learning allows users to explore a wide range of subjects, including STEM, coding, social-emotional learning (SEL), history, language arts, 21st-century skills, and more (Minecraft Education, 2023a).

Besides, Minecraft Education is accessible on Windows, Mac, and mobile devices, providing students with the platform to demonstrate teamwork and allowing teachers to incorporate online elements into their teaching methods (Minecraft Education, 2023b). Additionally, Minecraft application is built on a game-based concept. According to Callaghan (2016), Minecraft is a gamification tool that enables students to build, participate in, and evaluate project-based learning activities. It remains one of the most widely played video games in history, with over 200 million copies sold and 131 million active monthly users (Watts, 2021).

As we know, learning a second language is known to be a challenging and often unpleasant task, especially for students whose native language is different (Romli et al., 2022). The learning process involves mastering writing, reading, speaking, and listening skills (Karwan & Fezile, 2021). Numerous researchers have conducted studies to enhance students' achievement and comprehension in Arabic language and literature (Fadhlan et al., 2024; Abdul Halim et al., 2022; Daud & Nahilah, 2014).

In fact, students face difficulties in understanding the Arabic language and literature. These challenges stem from both internal and external factors. Internally, students struggle with limited vocabulary proficiency and low confidence and motivation (Fadzil et al., 2024). Externally, non-Arabic speakers face obstacles due to the scarcity of readily available learning aids and references (al-Haddad et al., 2025).

There are other factors that contribute to weaknesses in learning Arabic language and literature especially *al-Balāghah*, but this article focuses on the *al-Kināyah* aspect, which is part of *al-Balāghah*. These weaknesses include: 1) insufficient diversity of approaches in *al-Balāghah* learning; 2) negative or weak attitudes, motivation, or perceptions of students in their field of study; 3) pedagogical weaknesses and forms of assessment; 4) lack of references and complete *al-Balāghah* learning modules at the tertiary level; and 5) unclear objectives and misaligned syllabus. (Sulaiman & Wahid, 2021).

Al-Jurjani further explains about *al-Kināyah*. According to him: "*Al-Kināyah* is the process in which the text producer seeks to substantiate a specific meaning without mentioning it directly through its known (original/conventional) word in the language." Instead, he opts for a meaning (word) that is 'associated' and adjacent to the true meaning (proper sense) in order to allude to and attest to the intended meaning; for example phrases like 'He is long of sword-scabbard' to describe someone tall, '[having] a lot of cooking-pot ashes' to signify generosity, and 'forenoon sleeper' to indicate a woman living luxuriously (Riyad, 2018). Briefly, al-Farahidi defines *Kamayah* linguistically as saying something to infer something else, such as *جماع* (sexual intercourse), *غيث* (defecation), and *رفث* (sexual intercourse) (Hidayat et al., 2024).

In conclusion, this article objective is to examine the usability of Minecraft Education for learning *al-Kināyah* in *al-Hadith al-Sharif* among experts and how do experts evaluate the usability of Minecraft Education for learning *al-Kināyah* in *al-Hadith al-Sharif* by using Fuzzy Delphi Method (FDM).

METHODOLOGY

This article utilizes Design and Development Research (DDR) method, which involves analysis, design, development, and evaluation. Therefore, the research focuses on the usability of utilizing the Minecraft Education game-based e-learning method in teaching *al-Hadith al-Sharif* from the

al-Kināyah perspective by following the DDR framework proposed by Saedah et al. (2020). The DDR model has three stages: (1) the analysis phase, (2) the design and development phase, and (3) the evaluation phase. Thus, this article focuses on the evaluation phase only.

Evaluation of the Model

This article analysed the usability of Minecraft as an educational game platform for learning *al-Hadith al-Sharif*. This analysis explored the potential benefits and challenges associated with using game-based learning in religious education, as well as any specific article or evidence pertaining to the *al-Kināyah* perspective within *al-Hadith al-Sharif* teachings.

In addition, this article assessed the usability of the Minecraft educational game for learning the *al-Kināyah* in *al-Hadith al-Sharif* through evaluations by twelve SMEs from various backgrounds, including Arabic language and literature, *al-Hadith as-Sharif*, Islamic learning, gamifications, instructional design and Minecraft Education. These SMEs evaluated the usability this article and verify its suitability as a learning tool.

Fuzzy Delphi Method

Generally, the Fuzzy Delphi method (FDM) is a method widely used by many researchers to obtain the opinions, ideas, consensus, and agreement of experts who serve as respondents in a study. The consensus of experts is crucial in determining the variables to be measured and interpreting the results quantitatively (Jamil & Noh, 2020). Additionally, FDM is considered a unique method as it allows researchers to achieve reliable outcomes based on the collective opinions, agreements, insights of Subject Matter Experts (SME) (Jamil & Noh, 2020).

Thus, this study adopts a quantitative research approach by applying the FDM method developed by Murray et al. (1985) and further developed by Kaufman and Gupta (1998). According to Jamil & Noh (2020), the FDM can be implemented to achieve expert consensus on a specific issue. The justification for choosing FDM over the Delphi technique is that it saves time and cost when administering questionnaires (Yusoff et al., 2021). Moreover, FDM allows experts to consistently share their views throughout the evaluation process (Jamil & Noh, 2020).

In fact, the minimum number of experts required in the FDM is to ensure a high level of uniformity among experts' judgments (Adler & Ziglio, 1996). Therefore, twelve experts were selected for this study through purposive sampling technique. These experts have expertise in Arabic language and literature, *al-Hadith al-Sharif*, Islamic learning, gamification, instructional design and Minecraft Education.

Hence, the experts were required to (1) hold a PhD as an academic qualification, and (2) have a minimum of ten years of experience in the field. The expert selection criteria in this study were in line with Berliner (2004), who defined an expert in a field as someone with more than five years of experience in that field. Additionally, Gambatese et al. (2008) suggested that experts should have a high academic qualification.

Next, the triangular fuzzy numbers in FDM are represented by the values of the mean fuzzy numbers: M1, M2 and M3. M1 refers to the minimum value, M2 represents the most plausible value, and M3 indicates the maximum value (Jamil & Noh, 2020). These numbers are used because each scale in the fuzzy system cannot be treated as a static value, instead they must align with the 7-point Likert scale (Jamil & Noh, 2020). The table below presents the differences between the Likert scale and the corresponding Fuzzy scale.

Figure 1: Differences Between the 7-Point Likert Scale and the Fuzzy Scale

Likert Scale		Scale Level		Fuzzy Scale
7		Strongly agree		(0.9, 1.0, 1.0)
6		Agree		(0.7, 0.9, 1.0)
5		Somewhat agree		(0.5, 0.7, 0.9)
4		Neutral		(0.3, 0.5, 0.7)
3		Somewhat disagree		(0.1, 0.3, 0.5)
2		Disagree		(0.0, 0.1, 0.3)
1		Strongly Disagree		(0.0, 0.0, 0.1)

(Source: Jamil & Noh, 2020)

Accordingly, these experts validate the usability for designing an e-Learning module in al-*Kinayah al-Hadith al-Sharif* Through Minecraft Education using Zaharia's method (Zaharias, 2009). The survey focuses on two sections: Section A: respondent demographics, and Section B: Content, Learning Support, Visual Design, Navigation, Accessibility, Interactivity and Learnability.

RESEARCH FINDINGS

Firstly, a literature review and study review on this article have shown that both previous and current studies utilizing Minecraft Education as a learning tool have consistently shown high levels of student achievement. Therefore, these findings indicate that Minecraft Education is effective for teaching and learning. Moreover, positive feedback from previous studies supports the application of Minecraft Education in this research for teaching *Kinayah* in *al-Hadith al-Sharif*.

The activities and learning sessions began with a briefing and explanation of the basic concepts of *Kinayah*, its fundamentals, and the perspective of *Kinayah al-Hadith al-Sharif*. The briefing included the meaning of *Kinayah*, its categories, relevant examples, the meaning of *al-Hadith al-Sharif*, and the application of *Kinayah* within the context of *al-Hadith al-Sharif*. Following Benjamin Bloom's Taxonomy, the lesson plans progressed through six steps: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation (Anees, 2017).

The module provides a manual and procedure for teaching and learning the topic of *Kinayah al-Hadith al-Sharif* using Minecraft Education. The discussion began with an overview of game-based learning in Minecraft Education. In the study, the researcher created and designed a Minecraft world containing content related to *Kinayah al-Hadith al-Sharif*, with the goal of improving students' comprehension through higher order thinking skills (HOTs).

Therefore, the Fuzzy Delphi Method is being utilized to assess the usability of designing an e-learning module for Islamic Civilisation Education: a study of *al-Kinayah* in *al-Hadith al-Sharif* through Minecraft Education. This approach involves posing questions to research respondents who are Subject Matter Experts (SMEs). The research methodology incorporates evaluation criteria from Mohamad Yusof (2023), Zaharias (2009), Anastasi and Urbina (1997), Rust and Golombok (1989) to analyse usability.

Table 1: Respondent Demographics

No	Item
1	Gender
2	Level of Study
3	Course/Field
4	I have previously studied <i>Kinayah</i> in <i>al-Hadith al-Sharif</i>
5	I have prior experience with gamified learning
6	I have used Minecraft Education in a learning context.

Table 2: Content Evaluation Items for Subject Matter Experts

No	Item
1	The content related to <i>Kinayah</i> in <i>al-Hadith al-Syarif</i> is appropriate for undergraduate students.
2	This gamification approach enhances my understanding of the meanings of <i>Kinayah</i> .
3	This gamification helps me differentiate the classes of <i>kinayah</i> .
4	The activity involving the <i>Kinayah al-Hadith as-Syarif</i> deepens my understanding of <i>Kinayah</i> .

Table 3: Learning Support Evaluation Items for Subject Matter Experts

No	Item
5	The gamified module is easy to use.
6	This gamification effectively supports the learning of <i>Kinayah</i> in <i>al-Hadith al-Syarif</i> .
7	The gamification design is engaging and holds my interest.
8	The game interface is user-friendly.
9	I can navigate and use the game with minimal difficulty.

Table 4: Visual Design Evaluation Items for Subject Matter Experts

No	Item
10	The design theme is appropriate for undergraduate students.
11	The immersive reader functions effectively.
12	The background music is suitable for the educational setting.
13	The 3D sandbox is visually comprehensible.
14	The graphic elements are well-designed and relevant.

Table 5: Navigation Evaluation Items for Subject Matter Experts

No	Item
15	The gamified system includes all necessary functions.
16	The application runs consistently without issues.
17	All tools function as intended.
18	Instructions provided are consistent throughout the module.
19	Resources offer clear guidance.
20	Items and options are correctly positioned.
21	Checkpoints used in the game are well-integrated and logical.

Table 6: Accessibility Evaluation Items for Subject Matter Experts

No	Item
22	This gamified approach saves time in learning <i>Kinayah</i> in <i>al-Hadith al-Syarif</i> .
23	It is easily accessible for learning purposes.
24	The course is freely available within the education domain.

Table 7: Interactivity Evaluation for Subject Matter Experts

No	Item
25	The user interface is easy for participants to interact with.
26	The gamification enhances students' comprehension.
27	It increases motivation to engage in the learning process

Table 8: Learnability Evaluation for Subject Matter Experts

No	Item
28	The game can be used independently, without assistance.
29	The game learning is easy to understand.
30	The command steps in the Minecraft Education can be remembered easily

Table 9: Open Ended Question for Subject Matter Experts

No	Item
1	Any suggestions from the expert opinion's regarding usability of designing of e-learning module for Islamic civilization education: a study of <i>al-Kinayah</i> in <i>Sahihayn</i> al-Bukhari and Muslim through Minecraft Education

The usability questionnaire (Subject Matter Expert)

In the usability questionnaire items for Subject Matter Experts (SMEs) through *al-Kinayah* in *al-Hadith al-Syarif* via Minecraft Education as an e-learning module. Next, two expert evaluators were appointed to assess the test validity of the questionnaire instrument used in this survey. There are corrections, suggestions, and improvements in Table 10:

Table 10: Suggested Revisions to the Usability Questionnaire for Subject Matter Experts

Number	Item	Correction and Suggestion
1.	Section B (Content)	i. The item questions do not directly refer to the content materials developed or used in the gamification.
		ii. Rather, they focus more on the technical aspects of the gamification, which are linked to its function in enhancing understanding of <i>Kinayah</i> .
		This content is usually expressed in terms of the learning materials, such as the suitability of the <i>Kinayah</i> material derived from selected hadith to be used as content in the gamification, and other elements that are directly relevant
2.	Section B (Learning Tool)	Item No 3: double barreled
3.	Section B (Learning Tool)	Item No 5: double barreled
4.	Section B (Learning Tool)	Change (for my learning of <i>al-Kinayah</i>)
5.	Section B (Visual Design)	Item No 2: double barreled
6.	Section B (Visual Design)	Item No 5: double barreled
7.	Section B (Visual Design)	Item No 6: double barreled
8.	Section B (Visual Design)	Item No 7: double barreled
9.	Section B (Navigation)	Item No 9: double barreled
10.	Section B (Accessibility)	It is recommended to include the aspect of accessibility, particularly in terms of access at any time and from any location, which is essential to support students' learning needs.
11.	Section	Suggest to "Any expert suggestions on how to design a user-friendly e-learning module for Islamic Civilization education, focusing on <i>al-Kinayah</i> in <i>Sahih al-Bukhari</i> and <i>Muslim</i> using Minecraft Education"

In refining the usability questionnaire for Subject Matter Experts (SMEs), several corrections and improvements were made based on experts' feedback. In Section B, under the Content category, it was observed that the original items did not directly assess the relevance of the content materials used in the gamified module. Instead, they were more oriented towards technical functionality rather than assessing the suitability of the *Kinayah* content, which is derived from selected hadiths. Therefore, the items were revised to better align with the intended learning objectives.

In the Learning Tool sub-section, Item No. 3 and Item No. 5 were identified as double-barreled, meaning they contained multiple ideas in a single item. These items were separated into distinct items to ensure clarity and to allow respondents to evaluate each aspect independently. Additionally, wording such as "for my learning of *al-Kinayah*" was refined to enhance precision and clarity in interpreting the item's purpose.

In the Visual Design category, Item No. 2, 5, 6, and 7 were also recognized as having double-barreled issues. These items were revised by separating them into distinct statements to focus on individual visual design components, thereby improving the accuracy of SME responses and overall questionnaire reliability.

In the Navigation section, Item No. 9 was revised to address its double-barreled nature, ensuring that each navigational feature was assessed separately to obtain clearer usability feedback. In the Accessibility section, an important addition was made based on expert recommendation: new items were included to evaluate accessibility features, especially regarding students' ability to access the module at any time and from any location—factors deemed essential to support diverse learning needs.

Lastly, a new section was incorporated to gather open-ended feedback from SMEs. This section invites expert suggestions on designing a user-friendly e-learning module focused on

Islamic Civilization, specifically *al-Kinayah* in *Sabihayn* al-Bukhari and Muslim, using Minecraft Education. This addition was intended to enrich the development process with targeted insights from domain experts.

Thus, the survey items for assessing the usability of the Minecraft Educational game for learning *al-Kinayah* in *al-Hadith al-Sharif* were distributed among twelve experts to obtain consensus and acceptance. The criteria used in this survey to evaluate the experts' consensus were based on the Fuzzy Delphi Method (FDM), with specific terms and conditions such as a consensus percentage of over 75% (Chu & Hwang, 2008; Murray & Hammons, 1995; Ganisen S. et al., 2015) and a threshold value (d) equal to or less than 0.2 (Chen, 2000; Cheng & Lin, 2002).

Hence, Table 11 provides a summary of the findings and results obtained through the application of the Fuzzy Delphi Method (FDM) to evaluate the usability of design and development in this article.

Table 11: Expert Consensus Analysis Using the Fuzzy Delphi Method

No	Items	Number Triangular Fuzzy Threshold, D	Terms and Conditions of Defuzzification					Experts' acceptance
			Consensus Percentage (%)	M1	M2	M3	Fuzzy Score (A)	
1	The content related to <i>Kinayah</i> in <i>al-Hadith as-Sharif</i> is appropriate for undergraduate students.	0.0095	100.0%	0.731	0.900	0.985	0.872	ACCEPTANCE
2	This gamification approach enhances my understanding of the meanings of <i>Kinayah</i> .	0.095	100.0%	0.715	0.892	0.985	0.872	ACCEPTANCE
3	This gamification helps me differentiate the classes of <i>Kinayah</i> .	0.095	100.0%	0.669	0.862	0.977	0.836	ACCEPTANCE
4	The activity involving the <i>Kinayah al-Hadith as-Sharif</i> deepens my understanding of <i>Kinayah</i> .	0.172	92.31%	0.654	0.838	0.946	0.813	ACCEPTANCE
5	The gamified module is easy to use.	0.196	92.31%	0.715	0.869	0.946	0.844	ACCEPTANCE
6	This gamification effectively supports the learning of <i>Kinayah</i> in <i>al-Hadith as-Sharif</i> .	0.190	92.31%	0.685	0.854	0.946	0.836	ACCEPTANCE
7	The gamification design is engaging and holds my interest.	0.185	92.31%	0.685	0.854	0.946	0.836	ACCEPTANCE
8	The game interface is user-friendly.	0.095	100.0%	0.715	0.892	0.985	0.864	ACCEPTANCE

9	I can navigate and use the game with minimal difficulty.	0.176	92.31%	0.7	0.862	0.954	0.838	ACCEPTANCE
10	The design theme is appropriate for undergraduate students.	0.085	100.00%	0.715	0.892	0.985	0.864	ACCEPTANCE
11	The immersive reader functions effectively.	0.127	92.31%	0.715	0.885	0.969	0.856	ACCEPTANCE
12	The background music is suitable for the educational setting.	0.238	76.92%	0.638	0.808	0.915	0.787	ACCEPTANCE
13	The 3D sandbox is visually comprehensible.	0.135	100.00%	0.623	0.815	0.954	0.797	ACCEPTANCE
14	The graphic elements are well-designed and relevant.	0.117	100.00%	0.715	0.885	0.977	0.859	ACCEPTANCE
15	The gamified system includes all necessary functions.	0.165	92.31%	0.638	0.823	0.946	0.803	ACCEPTANCE
16	The application runs consistently without issues.	0.15	92.31%	0.7	0.869	0.962	0.844	ACCEPTANCE
17	All tools function as intended.	0.13	100.00%	0.685	0.862	0.969	0.838	ACCEPTANCE
18	Instructions provided are consistent throughout the module.	0.163	92.31%	0.731	0.885	0.962	0.859	ACCEPTANCE
19	Resources offer clear guidance.	0.185	92.31%	0.685	0.854	0.946	0.828	ACCEPTANCE
20	Items and options are correctly positioned.	0.122	100.00%	0.669	0.854	0.969	0.831	ACCEPTANCE
21	Checkpoints used in the game are well-integrated and logical.	0.117	100.00%	0.715	0.885	0.977	0.859	ACCEPTANCE
22	This gamified approach saves time in learning <i>Kinayah</i> in <i>al-Hadith al-Sharif</i>	0.22	76.92%	0.592	0.777	0.908	0.759	ACCEPTANCE
23	It is easily accessible for learning purposes.	0.182	92.31%	0.669	0.838	0.946	0.818	ACCEPTANCE
24	The course is freely available within the education domain.	0.244	76.92%	0.685	0.838	0.923	0.815	ACCEPTANCE
25	The user interface is easy for	0.122	100.00%	0.669	0.854	0.969	0.831	ACCEPTANCE

	participants to interact with.							
26	The gamification enhances students' comprehension.	0.195	84.62%	0.715	0.869	0.946	0.844	ACCEPTANCE
27	It increases motivation to engage in the learning process.	0.163	92.31%	0.731	0.885	0.962	0.859	ACCEPTANCE
28	The game can be used independently, without assistance.	0.169	92.31%	0.685	0.854	0.954	0.831	ACCEPTANCE
29	The game learning is easy to understand.	0.19	92.31%	0.7	0.862	0.946	0.836	ACCEPTANCE
30	The command steps in the Minecraft Education can be remembered easily	0.095	100.00%	0.731	0.9	0.985	0.872	ACCEPTANCE

Table 11 shows the evaluation of expert consensus analysis using the Fuzzy Delphi Method for all thirty items. This study focuses on three aspects: 1) Threshold value, 2) Fuzzy Score, and 3) Experts' acceptance. The findings show that the threshold values ranged from 0.095 to 0.244, with 90.00% of the items having values below 0.2. This indicates a high level of agreement and acceptance among the experts.

Meanwhile, only two items specifically items number 12 (0.238), 22 (0.22) and 24 (0.244) (10.00%), slightly exceeded the threshold values. Despite these differences, these items were maintained because of their acceptance, and satisfactory level of expert agreement, and strong Fuzzy scores. Hence, the significance of these items in the expert consensus analysis is still considered reasonable.

Furthermore, the Fuzzy score obtained in this study indicates the mean value of expert ratings ranging from 0.750 to 0.872 for all items. In fact, a Fuzzy Score exceeding 0.5 is considered appropriate and acceptable, indicating that the items are applicable and approved by expert consensus.

The items 1, 2 and 30 received the highest Fuzzy score of 0.872, suggesting that experts strongly agreed and approved of these items to be included in the teaching and learning module on gamification. In contrast, Item 22 had the lowest Fuzzy Score of 0.759, but it was still considered acceptable. Overall, the Fuzzy Scores in this study imply that all items, with scores of 0.75 or higher, were approved by experts, indicating consensus on the content and andragogical perspective.

In terms of expert acceptance, the evaluation revealed that all items were accepted and recognized. Thirteen items achieved 100% expert acceptance, indicating a unanimous consensus among them. The remaining items verified approval levels ranging from 76.92% to 92.31%, demonstrating a reasonable level of acceptance.

Finally, the research also received feedback from experts to improve this learning module, as shown in Table 12 below:

Table 12: Expert Consensus for Suggestions and Commentators

No	Subject Matter Expert (SME)	Suggestion and Commentator
1.	Expert A	The learning content and activities can always be updated.
2.	Expert B	It would be great if all instructions were written in Arabic.

3.	Expert C	Keep text to a minimum and rely on clear infographics, concise videos, and well-paced audio or lecture visuals to speed up understanding.
4.	Expert D	This innovative use of Minecraft Education to explore <i>al-Kinayah</i> in <i>Sabihayn</i> offers a fresh, engaging approach to Islamic Civilization studies and effectively inspires student participation
5	Expert E	1. Display gamification criteria on the interface 2. Provide clearer and more refined graphics
6	Expert F	This innovative use of Minecraft Education to explore <i>al-Kinayah</i> in <i>Sabihayn</i> offers a fresh, engaging approach to Islamic Civilization studies and effectively inspires student participation
7	Expert G	This is a new approach to study <i>al-Kinayah</i> .
8	Expert H	(1) Pedagogical Usability: The usability is very good; students are able to explore and interpret the meaning of <i>kinayah</i> through the virtual environment. (2) Gamification and Student Engagement: The reward system is well-designed; however, it is recommended that the reward system also be implemented from the beginning. For example, each time students read materials or complete activities such as taking photographs, they should receive rewards. (3) Cultural and Islamic Values Sensitivity: On the main page, the female avatar appears without proper covering (not observing <i>aurah</i>), which requires attention from a cultural and religious sensitivity perspective. (4) Cognitive Load Management: The management of cognitive load is very good; the hadith excerpts are displayed in a consistent style, and the levels of difficulty for learning <i>kinayah</i> are appropriately aligned with students' abilities. (5) Collaborative Learning and Ethical Reflection: The activities provided are encouraging and engaging. It is suggested to add a reflection activity after each mission. (6) Assessment and Feedback: The assessments or assignments provided help students monitor and regulate their own learning process. (7) Application Suggestions: 7.1 Provide a bilingual version (Arabic–English). 7.2 Add audio recitations of the hadith and subtitles for students with special needs.
9	Expert I	Include more specific activities that cater to each part of <i>Kinayah</i> . This could help extend the gameplay and make the learning journey even more enjoyable.
10	Expert J	Thorough documentation and ease-of-learning tutorial can further enhance the usability and learning curve of the Minecraft gaming module for those who have never lays their hand on the game.
11	Expert K	Do add more to the design (e.g. providing more challenges and diversifying the assessments) to further enhance students' interest, motivation and involvement in learning the topic through the game.
12	Expert L	1) Apply scaffolding techniques: start with simple Hadith examples and progress to complex metaphorical meanings. 2) Ensure the module design follows Islamic ethics (adab) in all visual, textual, characters and auditory content. Apply gamification strategies such as points, badges, or levels (e.g., “ <i>Kinayah</i> Explorer,” “Hadith Interpreter”) to motivate learners. 3) Ensure smooth performance across devices (desktop, tablet) and integrate an autosave system to maintain progress. 4) Enable multiplayer or team-based activities to promote discussion and cooperative problem-solving about <i>al-Kinayah</i> meanings. 5) Incorporate tasks that require group reflection or construction of symbolic scenes representing Hadith metaphors. 6) Implement built-in quizzes, immediate feedback, and reflection tasks after each mission to reinforce learning.

Table 12 displays the expert consensus on recommendations and feedback regarding the usability of teaching and learning *Kinayah al-Hadith al-Sharif* through Minecraft Education. Expert B emphasized the importance of having all instructions in Arabic. However, it is noted in the study review and literature reviews that Minecraft Education does not currently support Arabic fonts.

Next, experts H and L gave comments from the perspective of cultural and Islamic values on the female avatar appearing without proper covering (not observing *aurah*), highlighting the importance of considering cultural and religious sensitivities. Thus, the research suggests that future research investigate the necessity for all avatars to cover *aurah*.

Experts A, C, D, F, and G have confirmed that the module on *Kinayah al-Hadith al-Sharif* in Minecraft Education, which covers the game-based learning interface, infographics, visuals, and audio, is deemed suitable and appropriate for educational purposes. They recommend enhancing the module to make it more attractive, effective, and interesting.

Experts I, J, K, and L elaborate on the assessments and activities. This includes addressing all aspects of *Kinayah*, offering instructional guides, introducing additional difficulties and varying the assessments, applying scaffolding techniques, facilitating multiplayer or team-based activities, and implementing built-in quizzes, immediate feedback, and reflection tasks.

In conclusion, the expert consensus analysis in this study using the Fuzzy Delphi Method concluded that all items were accepted and approved. Therefore, the designing of e-learning module for Islamic civilization education on *al-Kinayah* in *al-Hadith al-Sharif* through Minecraft Education is acceptable and verified.

CONCLUSION

The evaluation phase was used to determine the usability of the design of the e-learning module for Islamic civilisation education of *al-Kinayah* in *al-Hadith al-Sharif* using Minecraft Education. To verify the usability, 12 Subject Matter Experts (SMEs) were involved in the research, applying the Fuzzy Delphi Method based on Zaharias' model, which has 7 concepts: content, learning support, visual design, navigation, accessibility, interactivity, and learnability. The SMEs were selected based on their expertise in areas such as Arabic language and literature, Islamic studies, educational technology, instructional design, and Minecraft Education. The results confirmed the usability of the DDR approach in integrating *Kinayah al-Hadith al-Sharif* through Minecraft Education. In conclusion, expert validation confirmed the andragogical reliability of the study. Moreover, the Fuzzy Delphi Method (FDM) was employed to validate the usability of the research ensuring that the module adhered to principles of usability, precision, availability, and alignment with Islamic civilisation educational mechanisms. In addition, beyond methodological contributions, this article highlights the broader significance of integrating andragogical innovation into the teaching of Islamic studies. The incorporation of Minecraft Education into the learning of *Kinayah al-Hadith al-Sharif* illustrates how contemporary educational technologies can be meaningfully aligned with traditional Islamic knowledge systems. Moreover, while the current study focuses on *Kinayah* as a rhetorical device within *al-Hadith al-Sharif*, future modules could incorporate additional elements of Arabic rhetoric, such as *majaz*, *Tashbih*, and *al-Isti'arah*. Extending the instructional design to encompass a broader range of *Balaghah* concepts would allow learners to engage more comprehensively with Arabic rhetorical theory and its application within Islamic texts. Furthermore, this approach could be extended beyond rhetoric to include other areas of Islamic studies, thereby positioning Minecraft Education as a versatile platform for a wider range of instructional applications within Islamic Civilization Education.

ACKNOWLEDGEMENT

The author would like to express sincere gratitude to all individuals and institutions who contributed to the completion of this article. Special appreciation is extended to the Subject Matter Experts (SMEs) who generously shared their time, expertise, and valuable insights during the evaluation process of the e-learning module. Their constructive feedback and professional recommendations significantly enhanced the quality and usability of the module. The author also wishes to acknowledge the support provided by the academic community and institutions involved in this study, particularly in facilitating the research environment and providing access to relevant resources. Appreciation is also extended to colleagues and peers who offered guidance, encouragement, and scholarly discussions throughout the research process. Finally, the author would like to thank all parties who directly or indirectly contributed to the success of this research. Their support and cooperation were essential in ensuring the successful development and evaluation of the e-learning module for teaching *al-Kinayah* in *al-Hadith al-Sharif* through Minecraft Education.

AUTHORS CONTRIBUTIONS

Muhammad Nur Farhan Zamziba contributed to the conceptualization of the study and the development of the research framework. Rahmah Ahmad H. Osman was responsible for the research methodology and overall research design. Muhammad Anwar Ahmad conducted the formal analysis and contributed to the interpretation of the research findings. Rabiatal Fatimah Azzahra Rashid was involved in the validation process and critical review of the manuscript. All authors contributed to the preparation of the manuscript and approved the final version for publication.

CONFLICT OF INTEREST

The authors declare that there are no known financial, personal, or professional conflicts of interest that could have appeared to influence the work reported in this paper.

ETHICS STATEMENT

This study did not involve human participants, animals, or any intervention requiring ethical approval. All data analysed in this article were obtained from publicly accessible and published sources. Therefore, ethical clearance was not required.

ARTIFICIAL INTELLIGENCE (AI) GENERATED TEXT DECLARATION

The authors affirm that this manuscript was prepared with little usage of Artificial Intelligence (AI) techniques. AI-based techniques were only used to improve expression clarity, check grammar, and modify language. No artificial intelligence (AI) techniques were employed to produce novel concepts, analyze data, interpret results, or take the place of the writers' intellectual contributions.

DATA AVAILABILITY STATEMENT

The article contains the data that supports the study's conclusions. You can contact the corresponding author and first author with any additional questions about the information or resources utilized in this study.

REFERENCES

- Abdul Halim, W. M. U., Ab. Halim, Z., & Abdul Hamid, M. F. (2022). Malaysian university students' comprehension on the text of Arabic literature Kalilah wa Dimnah. *International Journal of Academic Research in Progressive Education and Development*, 11(2), 1677–1686. <http://dx.doi.org/10.6007/IJARPED/v11-i2/14107>
- Adler, M. & Ziglio, E. (1996). *Gazing into the Oracle: The Delphi Method and its Application to Social Policy and Public Health*. Jessica Kingsley Publishers.
- Ahmad, M. A., Zamziba, M. N. F., Ahmad, H., & Ku Yaacob, K. M. S. (2025). Enhancing prophetic Arabic vocabulary for understanding al-Arba'in al-Nawawiyah through board game: A Systematic literature review. *International Journal of Language Education and Applied Linguistics*, 15(1), 16-25. <https://doi.org/10.15282/ijleal.v15i1.11228>
- Ahmed, A.A., Sayed, B.T., Wekke, I.S., Widodo, M., Rostikawati, D., Ali, M.H., Abdul Hussein, H.A., Azizian, M. (2022). An empirical study on the effects of using Kahoot as a game-based learning tool on EFL learners' vocabulary recall and retention, *Education Research International*. <https://doi.org/10.1155/2022/97391477>
- Al-Haddad, A. B. A., Hassan, A. H. M., Mahmoud, H. A. A., & Eldeib, A. A. M. (2025). Teaching Arabic grammar to non-native speakers in Malaysia: Challenges and solutions. *International Journal of Academic Research in Business and Social Sciences*, 15(6), 520–531.
- Anastasi, A., & Urbina, S. (1997). *Psychological Testing* (7th ed.). Upper Saddle River. Prentice Hall.
- Anees, S. (2017). Analysis of assessment levels of students' learning according to cognitive domain of Bloom's taxonomy. Institute of Agricultural Extension and Rural Development, Faculty of Social Sciences, University of Agriculture, Faisalabad-Pakistan. <https://eric.ed.gov/?id=ED586762>
- Aziz, M. S. A., Auyphorn, P., & Hamzah, M. S. (2019). Exploring the use of digital games as a persuasive tool in teaching Islamic knowledge for Muslim children. *International Journal of Advanced Computer Science and Applications*, 10 (6): 109-113.
- Berliner, D. C. (2004). Describing the behavior and documenting the accomplishments of expert teachers. *Bulletin of Science, Technology & Society*, 24(3), 200-212. <https://doi.org/10.1177/0270467604265535>
- Callaghan, N. (2016). Investigating the role of Minecraft in educational learning environments. *Educational Media International*, 53(4), 244–260. <https://doi.org/10.1080/09523987.2016.1254877>.
- Cheng, C. H., & Lin, Y. (2002). Evaluating the Best Main Battle Tank using Fuzzy Decision Theory with linguistic criteria evaluation. *European Journal of Operational Research*, 142, 74-86. [https://doi.org/10.1016/S0377-2217\(01\)00280-6](https://doi.org/10.1016/S0377-2217(01)00280-6)
- Chen-T. C. (2000). Extensions of the TOPSIS for group decision-making under Fuzzy environment, *Fuzzy Sets and Systems*, 114(1), 1-9. [https://doi.org/10.1016/S0165-0114\(97\)00377-1](https://doi.org/10.1016/S0165-0114(97)00377-1).
- Chu, H. C., & Hwang, G. J. (2008). A Delphi-Based approach to developing expert systems with the cooperation of multiple experts. *Expert Systems with Applications*, 34, 26-40. <https://doi.org/10.1016/j.eswa.2007.05.034>

- Daud, N. & Nadhilah, A. P. (2014). Permasalahan pertuturan dalam bahasa Arab sebagai bahasa kedua. *GEMA Online Journal of Language Studies*, 14, 117-133.
- Fadhlan, M., Firdaus, M., & Fikri, A. (2024). Improving student's Arabic achievement by implementing extracurricular program management. *AL-ISHLAH Jurnal Pendidikan*, 16(2), 1792-1804. <https://doi.org/10.35445/alishlah.v16i2.4722>.
- Gambatese, J. A., Michael Behm, Sathyanarayanan Rajendran. (2008). Design's role in construction accident causality and prevention: Perspectives from an expert panel. *Safety Science*. 46(4), 675-691. <https://doi.org/10.1016/j.ssci.2007.06.010>.
- Ganisen, S., Mohammad, I. S., Jawahar Nesan, L., Mohammed, A. H., & Kanniyapan, G. (2015). The identification of design for maintainability imperatives to achieve effective building maintenance: A Delphi study. *Jurnal Teknologi*, 77(30), 75-88. <https://doi.org/10.11113/jtv77.6871>
- Hidayat, A. R., Yusuf, M., & Miswar, A. (2024). The wisdom of kinayah in Qur'anic sexual terminology: A linguistic analysis of meaning, ethics, and aesthetic expression in divine discourse. *Sunan Kalijaga International Journal on Islamic Educational Research*, 8(2), 141–158. <https://doi.org/10.14421/skijier.2024.82.03>
- Hoque, M., Yusoff, A. M., Toure, A. K., & Mohamed, Y. (2019). Teaching hadith subjects through E-Learning methods: Prospects and challenges. *International Journal of Academic Research in Progressive Education and Development*, 8(2), 1043-1050. <https://doi.org/10.19030/ijber.v5i3.2532>
- Izhar, N. A., Na, Y. M. A., & Na, K. S. (2022). Teaching in the time of Covid-19: The challenges faced by teachers in initiating online class sessions. *International Journal of Academic Research in Business and Social Sciences*, 11(2), 1294-1306.
- Karwan, D. & Fezile, O. (2021). Gamification in teaching and learning languages: A Systematic literature review. *Journal for Multidimensional Education, Editura Lumen, Department of Economics*, 13(2), 559-577.
- Kawaid, A. I. S. D., Hassan, S. N. S., Amin, M. Z. M., Yabi, S., & Ismail, M. Y. (2018). Pengintegrasian aplikasi ICT berkaitan hadis dalam pengajaran dan pembelajaran kursus berkaitan hadis di universiti awam Malaysia. *Ma'alim al-Qur'an Wa al-Sunnah*, 14(2), 131–138. <https://doi.org/10.33102/jmq.v14i2.133>
- Microsoft. (2023a). What Is Minecraft Education. <https://education.minecraft.net/en-us/discover/what-is-minecraft>
- Microsoft. (2023b). Minecraft: Java & Bedrock Edition for PC. <https://help.minecraft.net/hc/en-us/articles/6657208607501-Minecraft-Java-Bedrock-Edition-for-PC-FAQ>. <https://www.iium.edu.my/deed/hadith/muslim/smtintro.html>
- Ministry of Education (MOE). (2019). Google classroom. <https://www.moe.gov.my/en/pemberitahuan/announcement/google-classroom-g>.
- Mohamad Yusof, M. A. (2023). The development and usability of an augmented reality application for learning and facilitating KAFA Arabic vocabulary (PhD thesis). Universiti Malaysia Kelantan.
- Mohd Fadzil, K., Mohd Saifun, A.M.S., Mohd Hasrul, K. (2022). Differentiated instruction: Exploring the attitudes of gifted and talented students in Mathematics. *Asian Journal of Research in Education and Social Sciences*, 4(1), 146-160. e-ISSN: 2682-8502.
- Mohd Jamil, M. R., & Mat Noh, N. (2020). *Kepelbagaian Metodologi dalam Penyelidikan Reka Bentuk dan Pembangunan*. Qaisar Prestige Resources.
- Mohd Zaidi, N. N. B., & Hoque, M. (2019). Application of e-learning for teaching Hadith in higher education institutions in Malaysia: A literature review. In Proceedings of the 6th International Conference on Quran as Foundation of Civilisation. Universiti Sains Islam Malaysia.
- Murray, J. W., & Hammons, J. O. (1995). Delphi: A versatile methodology for conducting qualitative research. *The Review of Higher Education*, 18, 423-436. <https://doi.org/10.1353/rhe.1995.0008>
- Murray, T. J., Pipino, L. L. & Van Gigch, J. P. (1985). A pilot study of fuzzy set modification of Delphi. *Human Systems Management*, 5(1), 76-80.
- Riyad, A.M.N. (2018). Kināyah as a figure of speech in the Qur'an: An analysis of four English translations [Doctoral dissertation, University of Leeds, Faculty of Arts School of Languages, Cultures and Societies].
- Romli, N.H., Abd Aziz, M.S., & N.Krish, P. K. (2022). First language use among second language teachers: Views vs practice. *Jurnal Cakrawala Pendidikan*, 41(3), 688–702. <https://doi.org/10.21831/cp.v41i3.42988>
- Rust, J., & Golombok, S. (1989). *Modern Psychometrics: The Science of Psychological Assessment*. London: Routledge.
- Saedah, S., Muhammad Ridhuan, T.L.A. & Muhamad Rozkee, R. (2020). *Pendekatan Penyelidikan Rekabentuk dan Pembangunan (PRP): Aplikasi kepada Penyelidikan Pendidikan*. Universiti Pendidikan Sultan Idris.
- Sandrone, S. & Carlson, C. (2021) Gamification and game-based education in neurology and neuroscience: Applications, challenges, and opportunities. *Brain Disorders*, 1, 100008 <https://doi.org/10.1016/j.dscb.2021.100008>.
- Sulaiman, R. H. R., & Wahid, N. A. (2021). Faktor-faktor kelemahan pembelajaran Balaghah. *International Journal of Contemporary Education, Religious Studies and Humanities*, 1(2), 111-120.
- Syaliman, K.U., Najwa, N.F., & Kreshna, J. A. (2022). Educational game as an effort to accelerate learning after the Covid-19 pandemic. *Journal of Applied Engineering and Technological Science (JAETS)*, 4(1), 478–487. <https://doi.org/10.37385/jaets.v4i1.1322>.
- Watts, R. (2021). The State of Minecraft in 2021. PC Gamer. <https://www.pcgamer.com/the-state-of-minecraft-in-2021/>.

- Yusoff M.S.B., Arifin W.N., Hadie S.N.H. (2021). ABC of questionnaire development and validation for survey research. *Education in Medicine Journal*. 2021;13(1):97–108. <https://doi.org/10.21315/eimj2021.13.1.10>.
- Zaharias, P. (2009). Usability in the context of e-Learning. *International Journal of Technology and Human Interaction* 5(4): 37–59. <https://services.igiglobal.com/resolvedoi/resolve.aspx?doi=10.4018/jthi.2009062503>.
- Zamziba, M. N. F. B., Osman, R. B. A. H., Ahmad, M. A. B., Rashid, R. F. A. B., Md. Noor, M. L. A. H. B., Rivensky, R., & Zabidi, U. A. B. A. (2023). Applying Minecraft to learn Arabic language and Islamic studies: Literature review. *European Proceedings of Educational Sciences*, 7, 532-542. European Publisher. <https://doi.org/10.15405/epes.23097.48>
- Zamziba, M. N. F., Ahmad H. Osman, R. ., & Ahmad, M. A. (2024). Exploring Minecraft in the primary school syllabus for enhancing Arabic learning: A Systematic literature review. *International Journal of Language Education and Applied Linguistics*, 14(1), 4-12. <https://doi.org/10.15282/ijleal.v14i1.9648>