O-jIE THE ONLINE JOURNAL OF ISLAMIC EDUCATION December *2025, Vol. 13, Issue 2*

ENHANCING ARABIC LANGUAGE LEARNING: USABILITY STUDY OF MYARABIYGAME IN RELIGIOUS PRIMARY SCHOOLS IN SELANGOR

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ABSTRACT

Arabic language education in Malaysia faces various challenges, including educational obstacles such as teacher qualifications, a lack of books, and resources. Additionally, the shift to online learning due to COVID-19 has brought about adaptation challenges for students studying Arabic, emphasizing the need for creative approaches, such as through Game-based learning and overcoming constraints in the educational process. Despite growing interest in Digital Game-based Language Learning (DGBLL) for Arabic language acquisition, research on its effectiveness remains limited. This study addresses this gap by evaluating the usability of the latest developed DGBLL prototype, myArabiyGame, designed to motivate Year 1 students in Malaysian Religious Primary Schools (SRA) to learn Arabic based on the Selangor Islamic Religious Department (JAIS) curriculum. A survey-based evaluation was conducted with 85 participants, including teachers and education experts. The survey assessed the usability of myArabiyGame across five key areas: content, motivation, accessibility, enjoyment, and multimedia integration. The findings reveal that the majority of respondents found the game interesting, easy to understand, and motivating, with 76.5% acknowledging the game's engaging nature. Additionally, 63.1% agreed that the game's educational content was explicit. Multimedia elements were highly rated for their clarity and appropriateness, with 79.5% indicating they had a clear purpose and 78.3% affirming their support for information delivery. Despite these positive outcomes, areas for improvement were identified, particularly in instructional clarity and quality of multimedia. Overall, myArabiyGame demonstrates significant potential as an effective tool for Arabic language education, with implications for enhancing teaching strategies and learning experiences in primary education settings.

Keywords: *Usability, educational application, myArabiyGame, religious primary school, game-based learning, teacher evaluation.*

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INTRODUCTION

The growing interest in Game-Based Learning for language acquisition is evident from the increasing research and attention dedicated to Digital Game-Based Language Learning (DGBLL). Studies emphasize the potential of digital games to enhance foreign language teaching and learning, promoting engagement, participation, and academic performance (Li, 2023; Thurairasu, 2022). Research highlights the benefits of gamification in language education, including improved student engagement, motivation, and language acquisition skills (Hofmeyr, 2022; Supramaniam & Shahirah, 2022). Furthermore, the effectiveness of game-based learning in improving children's English learning and literacy skills has been demonstrated, showing significant enhancements in learning efficiency, quality, and interest compared to traditional teaching methods (Wei & Wang, 2022). Overall, the literature underscores the value of incorporating game elements into language-learning environments to facilitate effective, enjoyable learning experiences.

For several reasons, learning Arabic in Selangor's religious primary schools is very important. According to the related studies, vocabulary enrichment is emphasized in programs like j-QAF, which emphasizes the need to memorize vocabulary for proficiency in the language (Baharudin et al., 2023). Furthermore, the difficulties in teaching Arabic in Malaysia's Islamic secondary schools underscore the need for practical solutions to problems such as inadequate resources and teacher qualifications (Zahrin et al., 2021). Additionally, the opinions of parents, instructors, and students at Selangor's National Religious Secondary Schools (SMKA) highlight the difficulties in teaching and learning Arabic, stressing the value of having a positive attitude toward the language as well as the necessity of better teaching strategies and encouraging surroundings (Ahmad @ Yunus et al., 2022). Overall, religious education and the development of a deeper understanding of Islamic teachings in Selangor primary schools depend heavily on students' ability to speak and understand Arabic. The literature analysis, however, revealed that there are still issues with students' aptitude, motivation, and interest in reading Arabic-language content. Students' lack of proficiency in the Arabic language is one of the primary causes of this issue (Rosni, 2013).

Traditional Arabic language education in Malaysia faces various challenges, including teacher qualifications, a lack of books and resources (Aldebsi & Eldesoky, 2023). Pronunciation difficulties among Malaysian students learning Arabic, stemming from the phonological influence of emphatic and guttural consonants, lead to mispronunciations and phonological challenges (Qarni et al., 2023). Financial constraints, a shortage of trained teachers, and inadequate learning facilities in Islamic schools hinder language achievement, thereby affecting students' university enrolment and professional prospects (Ilias et al., 2022). Learners' beliefs, difficulties, and strategies, as well as the importance of Arabic language awareness, pose challenges to the learning process, despite its recognition as significant for understanding the Quran (Mat et al., 2022). Additionally, the shift to online learning due to COVID-19 has posed adaptation challenges for students studying Arabic, underscoring the need for creative approaches and overcoming constraints in the educational process (Abd Razak & Mohd Rafy, 2022).

As such, a prototype of DGBLL, myArabiyGame, was developed based on a motivation model designed to encourage children to learn Arabic. Game-Based Arabic Language Learning was developed based on the curriculum of the Selangor Islamic Religious Department (JAIS) for Year 1 students in Religious Primary Schools (SRA). The myArabiyGame application aims to support Arabic language education, yet there has been limited empirical evidence assessing its impact. Understanding the perceptions of teachers and experts who use and oversee the implementation of such applications is crucial for optimizing their design and deployment. The primary goal of this study is to evaluate the usability of the myArabiyGame game-based Arabic language learning from the perspectives of teachers and experts in religious primary schools.

Existing Research on GBALL in Arabic Language Education

Although game-based learning has shown great potential in improving the quality of education, studies involving religious and Arabic language education are still lacking. The study of Masrop et al. (2023) found that studies of Arabic language learning based on digital games (GBALL) previously focused on design and development guidelines; however, there remains a lack of studies evaluating GBALL's usability for children and users with

disabilities, such as those with dyslexia. For example, the study of Ghani and Daud (2023) focuses on the development and evaluation of the effectiveness of game applications to facilitate learning in Islamic Religious Education materials.

The study of Md Noor et al. (2023) also explored the use of existing edutainment teaching modules, such as the Arabic Educational Charade Game, to improve the acquisition of Arabic vocabulary and speaking skills among university students. Al Azmi et al.'s (2023) study, on the other hand, examines the role of platforms such as Quizizz in improving Arabic language learning by using only document analysis methods. The studies presented a lack of research on the usability of GBALL in Arabic language education for children.

Usability in Educational Games and Its Relevance to Arabic Learning

Usability in game-based Arabic language learning has become a focus of various studies. The research of Tahir and Wang (2024) has shown that factors such as children's age group, choice of learning modality, and previous mobile experience can have a significant impact on usability and game performance in Arabic educational games. In addition, Wijaya et al. (2023) found that the Hangman game effectively improved vocabulary memorization among grade XI students.

This shows that the usability of game media is necessary in improving language learning. In addition, Muslimah (2022) has suggested that Arabic language teachers be trained in designing educational games to enrich the learning experience and activate students' roles, emphasizing the importance of usability considerations in game-based learning. Furthermore, Ghani and Daud's (2023) study found that digital game-based learning significantly improves student communication performance in Arabic language courses, highlighting the positive impact of usability-focused interventions on learning outcomes. The studies discussed earlier show that incorporating usability principles into game-based Arabic learning can improve engagement, learning outcomes, and the overall educational experience.

METHODOLOGY

This study was conducted to evaluate the usability of the myArabiyGame application. This study uses a quantitative research design with a descriptive survey method, as explained by the following:

Participants

A study conducted by Nielsen and Landauer (1993), and popularized by Nielsen (2016), regarding usability testing found that if the test is conducted using 5 evaluators, 85% of usability problems will be discovered. This finding is based on mathematical models and assumes an average probability of any single user detecting a specific usability problem (λ or p) of around 0.31 (31%). In comparison, a review of calculations using the typical λ value indicates that an evaluation involving 15 evaluators (users) will discover 100% of the usability problems. According to Nielsen (2000), an evaluation involving more than 15 user evaluators will waste time because the same and recurring usability problems are found, and no new usability problems are discovered. This reflects the law of diminishing returns in problem discovery, where the collection of new insights decreases significantly after the fifth user, leading to redundant findings. Nielsen (2000) claimed that elaborate usability tests are a waste of resources and recommended that assessments should be conducted with only 5 users.

However, the assumption that five users are enough has been challenged on both methodological and empirical grounds. Lewis (1994) confirmed that observing additional participants reveals fewer new problems. However, he stipulated that observing four to five participants uncovers about 80% of problems only if the average likelihood of problem detection (p) is high (in the range of 0.32 to 0.42, as observed by Virzi). Lewis noted that if the average likelihood of problem detection is lower, a practitioner will need to observe more than five participants to discover 80% of the problems. For instance, one study found that considerably more than five users were needed to find 85% of the total number of usability problems.

The study involved 85 participants who were selected through purposive sampling, comprising Arabic language teachers from JAIS religious primary schools in Hulu Langat, Selangor. They are out of the total number of Arabic

Teachers in the district is 97 teachers. They were invited to a workshop at Selangor Islamic University. They were selected based on their experience teaching Arabic. However, in this study, only seventy-two of them successfully answered all the items in the questionnaire.

Instrument

The instrument used in this study is a Questionnaire adapted from Nor Syamimi (2011). The questionnaire is divided into six parts:

1. Part A: Demographics of respondents, including gender, age, career experience, and experience with elementary school Arabic mobile software.
2. Part B: Contains 9 items related to content elements.
3. Part C: Contains 5 items related to motivational elements.
4. Part D: Contains 7 items related to accessibility elements.
5. Part E: Contains 6 items related to fun elements.
6. Part F: Contains 8 items related to multimedia elements.

Sections B through F of the questionnaire utilized a seven-point Likert scale, as shown in Table 1.

Table 1: Seven-Point Likert Scale

Scale Description	Value
Strongly Disagree	1
Disagree	2
Somewhat Disagree	3
Neutral	4
Somewhat Agree	5
Agree	6
Strongly Agree	7

The seven-point Likert scale was deemed most suitable for evaluating usability-related questionnaires. Additionally, the seven-point Likert scale tends to reflect respondents' assessments (Finstad, 2010) more accurately. This study used SPSS version 25 to analyse the frequency and percentage of demographic questions. The study data were presented in tabular form and described descriptively.

Validity Testing

To determine the content validity and improve the feasibility of the questionnaire, three experts reviewed the questionnaire. The language and content of the questions were refined to ensure respondents easily understood them. The Content Validity Ratio (CVR) method (Lawshe, 1975) was used to test the validity of the research instrument based on the following formula:

$$NKK = (2ng / N) – 1$$

Where ng = is the number of subject matter experts who rated the item favourably, and N = is the total number of subject matter expert panellists. According to Johnston and Wilkinson (2009), the NKK ranges from -1.00 to +1.00, with a value of 0.00 indicating that 50% of the expert panel believes the item is valid. This method sets the significance level at 0.05 (Lawshe, 1975). The content validity of the instrument test, pre- and post-test, using NKK is maximum, which is +1.00.

Statistical Tests of Reliability

According to Pallant (2003), the ideal Cronbach Alpha must be greater than 0.7. The reliability test shows that Cronbach's Alpha for the constructed instruments is above 0.70. This shows that these test questions are acceptable and reliable.

Procedure

Initially, this study involved 97 Arabic language teachers from Selangor Islamic Religious Department Primary School (SRA JAIS) in Hulu Langat district. This is the total population of Arabic language teachers in the district. However, only Eighty-five teachers attended the workshop organized for them. However, only seventy-two of them answered all items in the Questionnaire. The workshop received full cooperation from the Islamic Education Unit, Hulu Langat District Religious Office. During the workshop, after the briefing, the teachers present were allowed to use the myArabiyGame application on their respective mobile phones. They are also provided with a questionnaire to fill out after using the application. Ethical considerations include obtaining informed consent from all participants and ensuring anonymity and confidentiality of responses.

Data Analysis

The collected data were analysed using descriptive statistical methods. Descriptive statistics provided a summary of the demographic data and overall trends in responses. Visualization tools, such as charts and tables, were used to present the data clearly and effectively.

This structured approach ensures a thorough evaluation of the myArabiyGame application, providing valuable insights for developers, educators, and policymakers aiming to enhance educational experiences in religious primary schools.

RESULTS

The analysis of the survey data provided insightful findings across the five key elements of usability for the myArabiyGame educational application. The results are organized into sections based on these elements: Respondent Demographics, Content and Structure, Motivation and Engagement, Accessibility, Enjoyment, and Multimedia.

Respondent Demographics

The findings showed that the gender distribution was higher among female respondents (57, 68.7%) than among male respondents (26, 31.3%). The respondents' ages indicated that most were between 30 and 34 years old (33.3%), followed by those over 45 years old (21.0%) and those under 30 years old (21.0%). Most teachers had 5-10 years of experience (42.1%), followed by those with more than 10 years (27.6%). The majority of respondents (79.2%) have never used mobile applications for Arabic language education in primary schools.

Table 2: Respondent Demographics

Respondent Demographics	Total of Respondents (N: 72)	
	N	%
Gender		
Male	23	31.9
Female	49	68.1
Age		
Under 30 years old	17	23.6
30 to 34 years old	24	33.3
35 to 39 years old	11	15.3
40 to 44 years	7	9.7
Over 45 years	13	18.1
Career Experience		
Less than 5 years	18	25.0
5 to 10 years	30	41.7
More than 10 years	19	26.4

None	5	6.9
Use of mobile applications for Arabic language education in primary schools		
No	15	20.8
Yes	57	79.2

Content Elements

The Content Element Survey results are presented in Table 3.

Table 3: Result (Content Elements)

Question	Description	High Agreement* (%)	Low Disagreement** (%)
Q1	Engaging and Easy to Understand	76.5	8.3
Q2	Message Comprehension	65.5	4.8
Q3	Understanding Challenges	70.6	2.4
Q4	Repeated Question on Understanding Challenges	74.1	2.4
Q5	Engaging Learning Content	77.6	8.2
Q6	Clarity of Content Structure	80.0	7.1
Q7	Repeated Question on Clarity of Content Structure	82.4	8.2
Q8	Content Relevance	81.9	8.4
Q9	Repeated Question on Content Relevance	79.8	8.3

*High agreement

**Low disagreement

The responses to the content elements of "myArabiyGame" were generally positive. A majority (76.5%) found the game interesting and easy to understand, while a notable minority (8.3%) did not. Similarly, 65.5% of respondents agreed or strongly agreed that they understood the game's message, while 4.8% disagreed.

Regarding clarity on what needs to be done at each game challenge, 61.2% agreed or strongly agreed, indicating that the majority found the game instructions clear. However, 8.2% expressed some level of disagreement, suggesting room for improvement in instructional clarity. The structure of the content was perceived as clear by 61.2% of respondents, although a small percentage (7.1%) did not find it clear.

When asked about the interest level of the learning content, 54.2% of respondents agreed or strongly agreed that it was interesting, while 8.3% disagreed. This shows that while a majority found the content engaging, a significant portion may need more compelling content. The relevance of the content was affirmed by 56.5% of respondents, indicating that more than half found the content applicable and valuable.

Motivation Element

The Motivation Element survey results are presented in Table 4.

Table 4: Motivation Element survey results:

Question	**High Agreement* (%)**	**Low Disagreement** (%)**
Q10 (Interest in Continuing Use)	85.9	11.8
Q11 (Clarity of Learning Objectives)	76.5	4.7
Q12 (Enhancement of Classroom Learning)	77.6	4.7
Q13 (Usability of Information)	83.3	13.1
Q14 (Self-Learning Tool)	80.0	4.7

*High agreement
**Low disagreement

The game's motivation elements received positive feedback. 85.9% of respondents agreed or strongly agreed that the game attracted their interest and led them to continue using it. This suggests the game has the potential to engage and retain users' attention effectively. Moreover, 76.5% found the learning objectives clear, although 4.7% disagreed, indicating some ambiguity in the objectives for a minority of users.

The game's potential to enhance classroom learning was acknowledged by 77.6% of respondents. In comparison, 4.7% did not see its relevance, suggesting that while many respondents (83.3%) see its classroom utility, some educators may need more convincing or guidance to integrate it into their curriculum. Additionally, 80% of respondents agreed that the game is a good tool for self-learning, highlighting its potential as an autonomous learning resource.

Accessibility

The Accessibility Element Survey results are presented in Table 5.

Table 5: Accessibility Element survey results:

Question	**High Agreement* (%)**	**Low Disagreement** (%)**
Q15 (Ease of Handling and Control)	82.4	21.2
Q16 (Repeated Question on Ease of Handling and Control)	76.2	10.7
Q17 (Non-confusing Navigation)	83.3	16.7
Q18 (Appropriate Click Response)	74.1	17.6
Q19 (Repeated Question on Appropriate Click Response)	76.5	5.9
Q20 (Appropriate Background Colours)	78.8	4.7
Q21 (Repeated Question on Background Colours)	83.5	5.9

*High agreement
**Low disagreement

The survey results for the Accessibility Element provide significant insights into user perceptions of the ease of use and navigability of the content. The findings indicate a generally high level of agreement across various aspects, highlighting strengths and areas for improvement.

Ease of Handling and Control (Q15 and Q16). The results for Q15 show a high agreement rate of 82.4%, indicating that most users find the system's handling and controls intuitive and manageable. However, the relatively high low-disagreement rate of 21.2% indicates that a notable minority finds these aspects less satisfactory. When asked a similar question in Q16, the high agreement drops to 76.2%, and the low disagreement rate improves to 10.7%. This suggests some variability in user experiences, possibly indicating inconsistencies in user interactions with the system.

Navigation and Click Response (Q17 to Q19). For Q17, 83.3% of respondents agree that navigation is non-confusing, while 16.7% still disagree. This feedback points to generally positive user experiences with navigation, but also highlights that a significant portion of users encounter challenges. Q18, which focuses on appropriate click responses, shows high agreement (74.1%) but a high level of low disagreement (17.6%), indicating that responsiveness might not always meet user expectations. Interestingly, when this question is repeated in Q19, the high agreement improves to 76.5%, and the low disagreement drops significantly to 5.9%. This discrepancy suggests that while initial impressions of click responsiveness may vary, users may become more accustomed to or satisfied with it over time.

Background Colours (Q20 and Q21). Background colours received positive feedback, with Q20 showing a high agreement rate of 78.8% and a low disagreement rate of only 4.7%. This indicates that the visual aspects of the background colours are largely well-received. The high agreement for Q21, which repeats the question on background colours, increases to 83.5%, and the low disagreement remains low at 5.9%. This consistency in feedback underscores the effective use of background colours to enhance the user experience.

Enjoyment Element

The Enjoyment Element Survey results are presented in Table 6.

Table 6: Enjoyment Element survey results:

Question	High Agreement (%)	Low Disagreement (%)
Q22 (Enjoyable Background Colours)	72.9	4.7
Q23 (Easy to Understand Icons)	75.3	4.7
Q24 (Engaging Sound Effects)	75.9	18.1
Q25 (Stimulating Curiosity)	83.5	9.4
Q26 (Helpful Assistance Button)	83.5	9.4
Q27 (Suitable Game Type for Learning Process)	80.0	5.9

*High agreement
**Low disagreement

Enjoyable Background Colours (Q22). The feedback on background colours is predominantly positive, with 72.9% of respondents expressing high agreement. The low disagreement rate of 4.7% indicates that only a small fraction of users find the background colours less enjoyable. This suggests that the current design choices for background colours primarily create a visually pleasing environment.

Easy to Understand Icons (Q23). Icons play a vital role in user navigation and understanding. In Q23, 75.3% of users agreed that the icons are easy to understand, while only 4.7% disagreed. This high level of agreement highlights the effectiveness of the icons in facilitating user comprehension and interaction, suggesting that the design and selection of the icons are well aligned with user expectations.

Engaging Sound Effects (Q24). Sound effects can significantly enhance user engagement and enjoyment. The high agreement rate for Q24 (75.9%) indicates that most users find the sound effects engaging. However, the low disagreement rate of 18.1% is relatively high compared to other elements, suggesting that sound effects may not appeal to everyone. This mixed feedback might be due to personal preferences or varying contexts in which users interact with the system.

Stimulating Curiosity (Q25). Curiosity is a critical factor in maintaining user engagement, particularly in educational content. For Q25, an impressive 83.5% of respondents agreed that the content stimulates their curiosity. The low disagreement rate of 9.4% further emphasizes that most users find the system intriguing and motivating, which is essential for sustaining long-term engagement.

Helpful Assistance Button (Q26). The assistance button received positive feedback, with 83.5% of users agreeing that it is helpful. The low disagreement rate of 9.4% indicates that the majority of users find the assistance feature beneficial. This suggests that the design and functionality of the assistance button effectively support users in navigating and understanding the system.

Suitable Game Type for Learning Process (Q27). Gamification can enhance learning by making it more interactive and enjoyable. In Q27, 80.0% of respondents agreed that the game type used is suitable for the learning process, with a low disagreement rate of 5.9%. This high level of agreement highlights the appropriateness of the chosen game mechanics in facilitating learning, indicating that users find the game elements both enjoyable and educationally beneficial.

Multimedia

The Enjoyment Multimedia Survey results are presented in Table 7.

Table 7: Survey data in the specified table format:

Question	Description	High Agreement (%)*	Low Disagreement (%)
Q28	Clarity of Multimedia Elements' Purpose	79.5%	5.9%
Q29	Clarity of Multimedia Elements' Purpose	79.5%	4.8%
Q30	Suitability of Multimedia Elements Combination	77.1%	6.0%
Q31	Management of Multimedia Elements Presentation	70.0%	7.2%
Q32	Number of Multimedia Elements per Screen	75.9%	7.2%
Q33	Support of Information by Multimedia Elements	78.3%	4.8%
Q34	Quality of Multimedia Elements	79.5%	10.8%
Q35	Enhancement of Content Presentation by Multimedia	83.1%	8.4%

*High agreement

**Low disagreement

The survey responses regarding the multimedia elements of "myArabiyGame" were predominantly positive. A substantial majority (79.5%) agreed or strongly agreed that each multimedia element in the application had a clear purpose, while a small percentage (5.9%) disagreed. Similarly, 79.5% of respondents found the purpose of the multimedia elements clear in a separate question, while only 4.8% disagreed.

Regarding the combination of multimedia elements, 77.1% of teachers felt the elements were appropriately combined, indicating that the multimedia components work well together to create a cohesive learning experience. Only 6.0% of respondents disagreed, suggesting that the combination of elements generally supports the application's educational objectives.

Regarding the management of multimedia elements' presentation, 70.0% of teachers agreed or strongly agreed that the elements were well managed. This indicates effective integration and timing of multimedia components within the application. However, 7.2% expressed some level of disagreement, highlighting a potential area for improvement. Regarding the number of multimedia elements per screen, 75.9% of respondents agreed or strongly agreed that it was kept at a manageable level, which helps avoid cognitive overload. Only 7.2% of teachers disagreed with this aspect.

The support for multimedia elements in conveying the information was affirmed by 78.3% of teachers, indicating strong consensus that they enhance understanding and retention of the material. A mere 4.8% disagreed, indicating widespread approval of multimedia's support for educational content. The quality of multimedia elements received positive feedback from 79.5% of respondents, who agreed or strongly agreed that the elements were of good quality. Nonetheless, 10.8% of teachers disagreed, suggesting that while most find the quality satisfactory, there is room for enhancement.

Lastly, 83.1% of teachers agreed or strongly agreed that the multimedia elements enhanced the presentation of content, the highest level of agreement in the survey. This highlights the significant positive impact of multimedia on the application's educational value, though 8.4% of respondents felt otherwise, indicating a need for continual improvement to satisfy all users fully. Overall, the data suggest that teachers have a favourable view of the multimedia elements in "myArabiyGame," with high levels of agreement across various aspects, including clarity, suitability, management, support, quality, and the enhancement of content presentation. These positive perceptions can guide further development to ensure the application continues to meet and exceed educational standards.

SUMMARY AND CONCLUSION

The study on the usability of "myArabiyGame" in religious primary schools in Selangor provides significant insights into the potential of game-based learning (GBL) to enhance Arabic language education. The evaluation findings are encouraging and indicate the game's efficacy in making Arabic language learning more engaging and effective for young learners.

Content Elements

The responses regarding the content elements of "myArabiyGame" were overwhelmingly positive. 76.5% of participants found the game interesting and easy to understand, though 8.3% did not. This indicates that while the game is generally well-received, there is room to improve engagement among a small segment of users. Furthermore, 63.1% of respondents felt that they understood the game's message clearly, with only 4.8% expressing disagreement, suggesting that the educational content is communicated effectively through the game.

In terms of clarity of instructions for each game challenge, 61.2% of respondents agreed or strongly agreed that the instructions were clear, though 8.2% expressed some level of disagreement. This highlights a need for improving instructional clarity to cater to all users. The content structure was perceived as clear by 61.2% of respondents, while 7.1% found it lacking clarity. Regarding the learning content's interest level, 54.2% found it

interesting, while 8.3% did not, indicating a need for more compelling content to engage all users fully. Additionally, 56.5% respondents affirmed the content's relevance, indicating that over half found it applicable and helpful.

Motivational Elements

The motivational aspects of the game were well-received, with 85.9% of respondents expressing interest in continuing to use "myArabiyGame", despite 11.8% showing less enthusiasm. This high level of interest suggests that the game effectively motivates students to engage in Arabic language learning. Clarity of learning objectives was agreed upon by 76.5% of participants, with only 4.7% in disagreement, indicating that the game successfully communicates its educational goals.

Enjoyment Elements

Enjoyment is a critical factor in DGBLL, and "myArabiyGame" performs well in this area. A majority (72.9%) found the background colours enjoyable, and 75.3% agreed that the icons were easy to understand. Sound effects, which are crucial for engagement, were well received by 75.9% of participants, though 18.1% did not find them engaging. Additionally, 83.5% felt that the game stimulated their curiosity and found the assistance button helpful. The game type was considered suitable for learning by 80% of respondents, indicating a high level of acceptance of its design and format.

Multimedia Elements

The multimedia elements of "myArabiyGame" were highly praised: 79.5% agreed that each element had a clear purpose, and 77.1% indicated that the multimedia components were appropriately combined to create a cohesive learning experience. The management of these elements was deemed effective by 70% of respondents, though 7.2% felt otherwise, pointing to a potential area for improvement. The number of multimedia elements per screen was considered manageable by 75.9%, which helps avoid cognitive overload. Support for information provided by multimedia elements was affirmed by 78.3%, indicating that these elements significantly enhance understanding and retention of the material. The quality of multimedia elements received positive feedback from 79.5% of respondents, although 10.8% saw room for enhancement. Finally, 83.1% agreed that multimedia elements enhanced the presentation of content, highlighting the significant positive impact on the educational value of the application.

Conclusion

Overall, the study underscores the effectiveness of "myArabiyGame" in enhancing Arabic language learning among young learners in religious primary schools in Selangor. The game's content, motivational enjoyment, and multimedia elements are well-received by a majority of the respondents, indicating its potential as a valuable educational tool. However, the feedback also highlights areas for improvement, particularly in instructional clarity and multimedia quality. These insights are crucial for the ongoing development and refinement of "myArabiyGame", ensuring it continues to meet and exceed educational standards while providing an engaging and practical learning experience.

Acknowledgement

This paper is under the Selangor state research grant (SUK/GPNS/2023/pks/05)

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