

Perception and Evaluation of the Effectiveness of a Mobile Application for an Educational Arabic Charade Game in Acquiring Arabic Skills

Mohamad Lukman Al Hakim Bin Md Noor¹, Muhamad Zamri Bin Abdul Gani*², Nur Shuhadak Binti Ismail³, Nor Zahidah Binti Ahmad⁴, Khairun Nisaa Mohd⁵, Mohd Feham Bin Md. Ghalib⁶, Nur Farhana Binti Abdul Aziz⁷

¹Kulliyah of Education, International Islamic University Malaysia (IIUM), Malaysia

²Faculty of Islamic Studies, Kolej Universiti Islam Perlis, Malaysia

^{3,5}Academy of Language Studies, Universiti Teknologi MARA (UiTM), Malaysia

⁴Fakulti Pengajian Kontemporari Islam, Kampus Gong Badak, Malaysia

⁶AbdulHamid AbuSulayman Kulliyah of Islamic Revealed Knowledge and Human Sciences, International Islamic University Malaysia (IIUM), Malaysia

⁷Pusat Bahasa dan Pengajian Umum, Kolej Islam Teknologi Antarabangsa (KITAB), Malaysia

lukman91arabi@gmail.com¹, zamri@kuiips.edu.my*², shuhadak@uitm.edu.my³, nisaamohd@uitm.edu.my⁴, zahidahahmad@unisza.edu.my⁵, mfeham@iium.edu.my⁶, nur_farhana@kitab.edu.my⁷

Abstract

This study investigates students' perception of the effectiveness of an edutainment instructional module, specifically the Arabic Educational Charade Game, among students in a tertiary institute. Al-Jazzar's instructional development model was utilized to compose lessons focusing on daily Arabic sentence usage. Learning Arabic vocabulary and speaking skills can be challenging for many learners, especially non-Arabic speakers. The study's objectives are to outline the procedures for designing and producing an edutainment instructional module using this model and to explore students' perception of the instruction delivery in the Arabic Charade Game for acquiring vocabulary and improving speaking skills. The study follows a developmental method with the model as the main framework. In conclusion, the study recommends using a viable instructional development model for materials development and leveraging edutainment environments to enrich students' vocabulary and improve their Arabic speaking skills.

Keywords: Mobile Application; Arabic; Charade Game; Vocabulary; Speaking Skill; Al Jazzar Model.

INTRODUCTION

In the process of acquiring a new language, vocabulary is crucial. Students who lack a large vocabulary struggle to understand, communicate, and express themselves in written and spoken language (Kanan et al., 2019). The knowledge of vocabulary is considered to be one of the most important aspects of the Arabic language. Students are strongly encouraged to first broaden their knowledge of vocabulary so that they can master and increase the four language skills: reading, listening, writing, and speaking. Students are also allowed to practice and improve their speaking and listening skills. Nurkhamimi (2014) asserts that one reason the Arabic Language course failed was students' inability to memorize Arabic vocabulary. When it comes to language

evaluations, students who have a restricted Arabic vocabulary may suffer fear and anxiety since they may struggle to adequately explain themselves (Hasan & Al-Hasani, 2019). Therefore, for students to succeed in learning Arabic, it is imperative that they amass a considerable amount of Arabic vocabulary throughout their studies.

In the meantime, the use of the game in language learning will enhance students' comprehension and encourage their engagement with 21st-century learning skills such as collaboration, critical thinking, communication, and creativity. Games appear to be more effective and efficient than traditional learning approaches since they provide rapid feedback. Game-based learning (GBL) incorporates serious education, interactive entertainment, enjoyment, play, and engagement. Furthermore, it can be defined as "a teaching approach in which students explore relevant aspects of games in a learning context designed by teachers." "When a teacher and a group of students work together, the game takes on a whole new dimension, enriching everyone's experience" (Allam & Michael J.D., 2017). The digital game-based method of language learning is well-liked by Arabic language teachers, according to Ghazali et al. (2020), because it aids students in learning Arabic vocabulary and boosts their desire to learn the language. The effectiveness of teaching Arabic with the addition of game-based learning features will increase the student's interest in learning vocabulary and encourage their capacity to study at their own pace rather than heavily relying on their lecturers.

Game-based learning requires an understanding of instructional design in language teaching approaches and how they may be employed to achieve educational outcomes. Edutainment instructional modules differ from traditional "chalk and talk" methods in which lecturers spend more time in front of the class and are considered less engaging because they come from a single source. Today's instructional design strategies make Arabic language learning more efficient and interactive. For example, in the framework of Arabic Classroom, ADDIE, ASSURE, Morrison, Ross & Kemp, and Rapid Prototyping are studied (Donna, 2021).

As stated by Dee Andrews, a psychologist, and Ludwika A. Goodson, an instructional designer, instructional design models serve four purposes: "1. Improving learning and instruction through the systematic approach's problem-solving and feedback features. 2. Improving instructional design and development management using the systematic approach's monitoring and control functions. 3. Improving evaluation procedures through designated components and sequences of events, such as feedback and revisions events inherent in systematic instructional design models. 4. Using theory-based design within a systematic instructional design approach, test or build learning of instructional theory". (Dee Andrews & Ludwika A. Goodson, 1980).

Learning Arabic can be implemented with different platforms instead of relying on the traditional way of learning. It is proven that learning aids are highly related to the enhancement of students' performances. Online or digital games, for instance, impacted students' perception, concentration, immersion, and knowledge improvement (Sabri & Ghazali, 2012). To make learning the Arabic language more effective, it is recommended to engage both elements of learning and play which may contribute to cognitive development. It is proven as a helpful way for students throughout the learning process (Noor Azli et al., 2019).

Learning Arabic vocabulary can be considered an essential step or a key factor in mastering this foreign language as verified by Ghazali et al. (2013) that poor knowledge of Arabic vocabulary limits the ability of students to communicate, write, read, and listen

to materials in Arabic. To master Arabic reading skills, it is important to incorporate vocabulary elements in the design and development of language games. The use of technology in teaching activities leads students to practice language skills, particularly verbal skills as well as other language skills during learning activities (Hazrati et al., 2019).

Gamification modules regardless of their implementation (digitalised or undigitalised) such as online applications, card games, board games, or even hands-on are an alternative approach to strengthening students' knowledge, cultivating attitudes, increasing motivation as well as improving their achievement and language skills. It showed a positive change in terms of students' achievement in learning language, at the same time motivating teachers to use a gamification approach in teaching and learning sessions in the classroom (Mohd Nazmi, 2022). Agus (2021) also proved that the integration of gamification or educational games techniques with student response systems would elevate students' motivation and participation in learning the Arabic language alongside teachers' support and assistance. This paper discusses the techniques to develop an edutainment instructional module that ought to be incorporated into the development of an Arabic vocabulary game.

METHOD

Instructional Design/Development Model (ID Model) in teaching and learning Arabic. Brown and Green (2020) claim that instructional design is a framework that practitioners use when organizing, delivering, and evaluating instruction and instructional practices by referring to the research of other fields such as communication and cognitive psychology. The learner is the major emphasis of the design while developing instructional systems, which includes the big picture of how learning will go during the entire course. The most effective designs take the learner's viewpoint into account, as well as the needs of the students and the learning environment (Morrison et al., 2007; Naidu, 2013).

According to Blake and Guillen (2020), technology can capture students' attention, promote linguistic exploration, and facilitate the study of second languages (L2). Consequently, it is suggested that educators employ more digital tools in the Arabic Classroom. It is believed to be the most successful way of utilizing these technology resources to motivate pupils in language-learning strategies (Naidu, 2013). Arabic language educators need to understand the significance of instructional design and how successful language teaching strategies and approaches may be applied in the context of the Arabic language online environment to improve Arabic language education. This is because Arabic is a language that is widely spoken and keeps growing around the world online and offline. Examples of instructional design models that are frequently used in Arabic language learning are shown in Table 1. Different traditional educational learning theories, such as behaviorist, cognitive, constructivist, and modern theories, have an impact on the latest instructional design models (Levy & Stockwell, 2006; Naidu, 2013; Ryding, 2013). The Dick and Carey (1968) and ADDIE (1975) models of instructional design are both first-generation models that follow B.F. Skinner's behaviorist concepts. ASSURE (1996), Al Jazzar the newest edition (2013), and Morrison, Ross, and Kemp (2007 model) are three instructional design models that adhere to constructivist learning theories (Heinich et al., 1996). Cognitive learning theory is concerned with the investigation of knowledge creation, representation, and acquisition in the mind of the

learner. Constructivism cites the works of Piaget, Dewey, and Vygotsky (Levy & Stockwell, 2006; Richards & Rodgers, 2014).

Models that were developed more recently with the advent of computer technology include R2D2 and Rapid prototyping (1985) (Hess, D. 2021). Numerous studies on Arabic instructional design have also used these models. A different kind of model is also present in recent studies, such as the Arabic ID-DGBL: An Instructional Design (ID) Model For E-Arabic Teaching and Learning research by Sahrir, Zainuddin, and Abdullah. In this study, the design and development research—also known as DDR or developmental research—was used by the researchers to create a game prototype (Sahrir, D. M. S., Zainuddin, B. N., & Abdullah 2012). Another example can be found in the study by Zainuddin and Sahrir (2016) where they conducted on creating multimedia courseware for teaching Arabic vocabulary, which proposes the implementation of the social constructivism by Vygotsky (1978), second language acquisition by Krashen (1984), multimedia learning by Mayer (2001), and ADDIE instructional model by Dick & Carey (1990) theories. Examining instructional design in Arabic education reveals the areas that need more study and development. In order to create an instructional module that is suitable for beginners to learn Arabic communication and its vocabulary by using the Arabic Charade Game, researchers have chosen the Al Jazzar Instructional Design Model that is presented in an easy, interactive, edutainment, and simple way (Abdul Samad, 2012).

Description of Abdul Latif Developer of Development Model for Educational Design (2013) Abdul Latif Al-Jazzar has developed an educational design model (version III) to comply with the updates of e-learning, and distance learning, and this model is an upgrade of the previous two models. The developer developed its first model of educational design in 1995, in line with the widespread use of computer education. The model was developed again in 2002. This was the third edition in 2013 to comply with the innovations of e-learning and tele-learning.

Abdul Latif Al Jazzar's model consists of five basic stages: study and analysis, design, production and development, evaluation, and use phase. This model can be applied at the level of one lesson, at the level of a module, or on a full course or course, and the application of this model requires prior knowledge of learning technology and educational media. Some educational procedures must be taken into account in applying this model, such as educational reality, educational objectives, standards, and tests used to examine the achievement of goals, education and teaching strategies, learning sources, and the roles of both scholars and other human elements. The model also addresses the initial development structure, adjustment and evaluation processes, and feedback that assist in coherence and adjustment processes at every step of the educational system's construction. This mobile application of the Arabic Charade Game is used by students and can attract them and enhance their learning experiences. The research phase based on Abdul Latif Al Jazzar's model instructional design; analysis: learners need among students. Design: Formulating design theory and storyboard. Production: Development tools (for designing lessons and creating content information, uploading and converting mobile app packages using MIT Inventor), Validation, and Reliability checked by Experts. Evaluation: User Testing among students who learning in Arabic Language. Implementation of the mobile application of the Arabic Charade Game among students.

Research Design

The current research was conducted during an Arabic camp organized by the Arabic Language Student Association at UniSHAMS. Employing a quantitative research approach, the study utilized a questionnaire as its primary instrument to examine the efficacy and gauge the perception regarding the implementation of the mobile application of Arabic Charade Game among Sultan Abdul Halim Mu'adzam Shah International Islamic University (UniSHAMS) students. A descriptive methodology was employed to fulfill the research objectives. Data collection and analysis were facilitated through an online platform, specifically Google Form, to statistically evaluate the effectiveness and student perceptions of the edutainment instructional module, namely the mobile application of the Arabic Charade Game, in enhancing Arabic communication skills and vocabulary acquisition (Velan et al., 2019).

Respondents

In this investigation, a questionnaire was administered to 32 undergraduate students who took part in the study. Analysis of the participants' qualifications revealed that the majority were pursuing bachelor's degrees. In summary, the respondents for the Arabic camp comprised students enrolled in the Bachelor of Arabic Language program at Sultan Abdul Halim Mu'adzam Shah International Islamic University (UniSHAMS), spanning various years and semesters of study.

Research Instrument

In this study, researchers utilized primary data obtained through a structured questionnaire as the research instrument. The questionnaire was employed to explore students' perceptions and evaluate the effectiveness of the edutainment instructional module, the mobile application of the Arabic Charade Game, in enhancing Arabic communication skills and acquiring Arabic vocabulary. The questionnaire utilized in this study was adapted from a structured questionnaire developed by Mohamad et al., 2022. It was adjusted and refined to suit the specific requirements of the current research. Comprising 12 questions, the questionnaire aimed to elicit students' perceptions and feedback concerning the efficacy of the mobile application of the Arabic Charade Game's implementation. Each item on the questionnaire was rated using a Likert Scale, with students selecting from the following options: 5 = strongly agree, 4 = agree, 3 = neutral (neither agree nor disagree), 2 = disagree, and 1 = strongly disagree. Prior to commencing the main study, researchers performed a pilot test to assess the reliability of the research instrument, despite its prior validation by experts. The primary research instrument underwent pilot testing with a sample of 10 UniSHAMS students. The Alpha Cronbach coefficient was employed to evaluate the reliability of both the research instrument and its 12 questionnaire items. The obtained Alpha Cronbach coefficient was 0.844, indicating that the developed instrument is reliable and suitable for the actual data collection phase of the research.

Data Collection Procedure

The researchers employed suitable statistical instruments to collect data, aiming to fulfill the research objectives. After selecting and piloting the instrument, the results indicated the questions' acceptability. Subsequently, the questionnaire was distributed among students during the Arabic camp, with the mobile application of the Arabic

Charade Game being utilized. The participants' responses to the questionnaire served as primary data for statistical analysis. Respondents utilized the Likert scale in the questionnaire, with options ranging from Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), to Strongly Disagree (1). The data gathered via Google Forms underwent screening, cleaning, and transfer to the Statistical Package for Social Sciences (SPSS) for analysis. Subsequently, statistical analysis was conducted on the scores of the 12 questionnaire items, involving the summation of scores followed by frequency calculation

RESULTS AND DISCUSSION

In this section, we present the findings from a questionnaire. A total of 32 participants took part in this survey to collect the necessary information. These participants, comprising 17 male and 15 female students from Universiti Islam Antarabangsa Sultan Abdul Halim Mu'adzam Shah, were involved in the Arabic Educational Charade Games. They are students majoring in Arabic Language and Literature. The participants were given 11 questions to gather their perspectives and feedback on the effectiveness of the Arabic Educational Charade Game implementation. Based on the questionnaire, below are the acquired data;

Table 1. Arabic Charade Game Helps in Vocabulary Acquisition

No	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	The Arabic Charade Game helps in Arabic vocabulary acquisition	23	8	1	0	0
2	The Arabic Charade Game helps in word classification	21	10	1	0	0
3	The Arabic Charade Game makes the learning process easier	19	12	1	0	0
4	The Arabic Charade Game increases my interest in learning the Arabic language	22	0	1	0	0

Based on Item 1, a significant percentage of students strongly agree that the Arabic Charade Game helps in acquiring Arabic vocabulary, with 71.9% (23 students) strongly agreeing and 25% (8 students) agreeing. This indicates that the game is highly effective in aiding vocabulary acquisition among the students. Similarly, Item 2 shows that 65.6% (21 students) strongly agree and 31.3% (10 students) agree that the game helps in understanding word classifications, further highlighting its usefulness in vocabulary learning.

Item 3 demonstrates that 59.4% (19 students) strongly agree and 37.5% (12 students) agree that the game makes the learning process easier, suggesting that the game facilitates a smoother acquisition of vocabulary. Item 4 complements these findings, showing that 68.8% (22 students) strongly agree and 28.1% (9 students) agree that the game increases their interest in learning Arabic, which can be linked to improved vocabulary acquisition due to increased motivation and engagement.

Table 2. Arabic Charade Game Helps in Communication Skill

No	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	I am satisfied with my level of Arabic communication	18	9	4	1	0
2	The Arabic Charade Game helps in Arabic communication	24	7	1	0	0
3	The Arabic Charade Game encourages me in learning the Arabic language	23	8	1	0	0

In Items 1 and 2, a majority of students, 56.3% (18 students) and 75% (24 students) respectively, strongly agree that the Arabic Charade Game helps in improving their Arabic communication skills. This indicates a strong positive impact of the game on the students' ability to communicate in Arabic.

Item 3 further supports these findings, with 71.9% (23 students) strongly agreeing and 25% (8 students) agreeing that the Arabic Charade Game encourages them in learning the Arabic language. This encouragement is likely to translate into better communication skills as students become more confident and motivated to practice the language.

Table 3 Overall Perception of the Arabic Charade Game

No	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	The materials usage in the Arabic Charade Games is appropriate	12	14	6	0	0
2	The topic used in the Arabic Charade Game is well-organized	17	12	3	0	0
3	The lesson used in the Arabic Charade Games is intellectually challenging	10	14	7	0	1
4	The course materials provided during the game are beneficial	18	13	1	0	0

From the responses to Item 1, 37.5% (12 students) strongly agree and 43.8% (14 students) agree that the materials used in the Arabic Charade Games are appropriate. This suggests that the materials provided are well-received and considered suitable by the majority of students.

Item 2 shows that 53.1% (17 students) strongly agree and 37.5% (12 students) agree that the topics in the games are well-organized, logical, and consistent. This indicates a positive perception of the game's structure and content, which likely contributes to its effectiveness in both vocabulary acquisition and communication skills. Item 3 indicates that 43.8% (14 students) agree and 31.3% (10 students) strongly agree that the course lesson used in the games is intellectually stimulating. This suggests that the course material is engaging and challenges the students appropriately.

Lastly, Item 4 demonstrates that 56.3% (18 students) strongly agree and 40.6% (13 students) agree that the course materials provided are beneficial, highlighting their importance in aiding students' learning of Arabic.

These categorizations show that the Arabic Charade Games are well-perceived in terms of both vocabulary acquisition and communication skills, providing an engaging and effective learning tool for students.

CONCLUSION

The findings from the survey affirmed that integrating educational gamification techniques with student feedback systems in educational games and systems can enhance students' interest and engagement in their studies. When teachers employ gamification strategies, students exhibit a greater willingness to participate in class (Barrio et al., 2015; Wang & Lieberoth, 2016). By integrating games into the learning process, students are more motivated to learn. Compared to traditional methods, employing game-based learning techniques can better motivate and engage students in their studies (Huizenga et al., 2009; Perrotta & Houghton, 2013). Additionally, gamification can enhance motivation, achievement, and involvement in student learning activities, which are all beneficial for helping students achieve their academic goals (Kusuma et al., 2018).

In summary, based on the aforementioned research, playing Educational Arabic Charade Games is a potentially effective tool for learning new Arabic vocabulary and improving Arabic speaking skills. Gamification presents a novel and enjoyable approach to learning a new language. The study successfully utilized Al-Jazzar's instructional development model to design and produce an edutainment instructional module, which was perceived positively by students for its effectiveness in vocabulary acquisition and speaking skills improvement.

Upon completing this research, we would like to propose future improvements in research on gamification in educational settings. Firstly, it is recommended to provide specific examples of how gamification techniques have been implemented in educational settings to enhance understanding. This can help in elucidating the practical application of gamification in diverse educational contexts. Secondly, including quantitative data on the improvement in student engagement and performance resulting from the use of gamification techniques is advised. This would provide empirical evidence of the effectiveness of gamification in enhancing educational outcomes. Thirdly, conducting a longitudinal study to assess the long-term impact of gamification on student motivation and academic achievement is recommended. This can help in understanding the sustained effects of gamification over time. Lastly, exploring the effectiveness of different types of gamification techniques in different educational contexts is suggested. This can lead to a better understanding of which gamification techniques are most suitable for specific educational settings, thus guiding future implementation efforts.

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