**Maziyyatul Muslimah
Institut Agama Islam
Negeri Kediri**

maziyya@iainkediri.ac.id

Developing Arabic Educational Games in *'Arabiyah Lil Athfal* Entrepreneurship Course Using Project-Based Learning

Abstract

Arabic educational games proven to have the advantages of making learning more entertaining also enhancing students' interest and excitement for learning Arabic. In light of these benefits, studies suggest that Arabic language teachers should receive training in the design, planning, implementation, and evaluation of educational games in order to enrich learning and teaching experiences, activate learner's role, and benefit from educational games to achieve targeted direct knowledges. However, there is a paucity of research on teaching prospective Arabic teachers to build Arabic instructional games, particularly in the entrepreneurial context. Using qualitative methods, this study aims to indicate the project-based learning approach utilized to create Arabic instructional games as part of *Arabiyah lil Athfal* Entrepreneurship course in State Islamic University (IAIN) of Kediri, East Java, Indonesia. It is found that project-based learning in *Arabiyah Lil Athfal*'s class satisfied several defined criteria: centrality, driving question, constructive investigations, autonomy, and realism. The project was demonstrated to be a substantial component of the course and worthy of being regarded core.

Keywords: *Arabic; educational games; entrepreneurship; project-based learning*

Abstrak

Game edukasi bahasa Arab terbukti memiliki keunggulan menjadikan pembelajaran lebih menghibur serta meningkatkan minat dan semangat siswa untuk belajar bahasa Arab. Mempertimbangkan manfaat ini, banyak penelitian menyarankan agar guru bahasa Arab menerima pelatihan dalam desain, perencanaan, implementasi, dan evaluasi menggunakan permainan edukasi untuk memperkaya pengalaman belajar mengajar dalam mengaktifkan peran peserta didik serta memanfaatkan permainan edukasi untuk mencapai tujuan pembelajaran. Meski demikian, penelitian tentang

pelatihan calon guru bahasa Arab dalam mengembangkan permainan pembelajaran bahasa Arab masih terbatas, khususnya dalam konteks kewirausahaan. Menggunakan metode kualitatif, penelitian ini bertujuan untuk membahas pendekatan pembelajaran berbasis proyek yang digunakan dalam membuat game pembelajaran bahasa Arab sebagai bagian dari mata kuliah Kewirausahaan Arabiyah lil Athfal di Institut Agama Islam Negeri (IAIN) Kediri, Jawa Timur, Indonesia. Ditemukan bahwa pembelajaran berbasis proyek di kelas Arabiyah Lil Athfal memenuhi beberapa kriteria yang ditentukan: sentralitas, pertanyaan pemantik, penyelidikan konstruktif, otonomi, dan realisme. Proyek ini terbukti menjadi komponen penting dari perkuliahan dan layak disebut sebagai inti.

Kata kunci: Bahasa Arab; permainan edukasi; kewirausahaan; pembelajaran berbasis proyek

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INTRODUCTION

Arabic language has become one of the popular foreign languages taught in Indonesian schools for years (Nafisah et al. 2021, 765). As the language of the Quran, Arabic is universally spoken in a vast number of Muslim majority countries in the Middle East and North Africa (Halim et al. 2021, 18). As a Semitic language, Arabic has numerous distinct characteristics, including a large vocabulary and a complex phonological system. Words are derived from triliteral roots which is a unique morphological pattern system. They can always be traced back to their origin that are then transformed into different patterns (*awzaan*) to convey varying shades of meanings from the original definition, certain words are also naturally syntactic (Alsebayel & Berri 2019, 17).

As a field of study, Arabic is considered as a challenging subject. Students need to study many elements such as *Mufradat* (vocabulary), *Saraf* (morphology), *Nahwu* (syntax), *Istima'* (listening skill), *Qiraah* (reading skill), *Kalam* (speaking skill), and *Kitabah* (writing skill) (Rosalinda 2021, 45; Shofiyani & Muti'ah 2021, 230). Despite the fact that it has been studied in primary and secondary schools, a huge percentage of students are unable to communicate in Arabic. Students still lack the courage using Arabic both within and outside the classroom (Masrop et al. 2019, 3215).

The vocabulary is one of the primary issues that students confront when studying Arabic or another second language (Masrop et al. 2019, 3214). It is essential in language learning because it is the initial step towards understanding any language.

Learning language skills such as listening, speaking, reading and writing cannot be successful without a strong vocabulary. To put it another way, vocabulary is an important aspect of language and it is the first step in learning a language (Khaira et al. 2021, 2; Masrop et al. 2019, 3214). The most typical challenges that primary students have are difficulty pronouncing words and expressing them in phrases (Nafisah et al. 2021, 766).

According to recent studies, students' Arabic writing skills at various educational levels are also deteriorating. It was discovered that students have an undeniable deficiency in spelling skills. When expressing their thoughts through Arabic writing in social media, they often make spelling and punctuation errors (Alsebayel & Berri 2019, 17). The issue in learning Arabic writing is that it is a cursive language written from right to left with multiple forms for each character. When it comes to Arabic words, the Arabic language is one of the cult languages to study since its characters are unlike any other language (Elgamal et al. 2018, 2).

Aside from the linguistic issues, there are non-linguistic problems such as lack competence of teachers, less motivated students in learning, irrelevant and outdated teaching instructions, also inadequate learning facilities and infrastructure (Nafisah et al. 2021, 765). The inclination of the learning process to employ monotonous methods and the absence of innovations that are appropriate to current Arabic learning are major factors that cause students' learning slower. As a result, students are less motivated to engage in the learning process (Halim et al. 2021, 18). The rote approach is commonly used to teach vocabulary in Arabic lesson which causes students to become bored with memorizing vocabulary thus reduces their interest to study (Wahyuni 2021, 103).

Due to the teachers' traditional teaching methods, Arabic lessons are generally seen as tedious (Zoghoul, 2020). Arabic traditional classrooms are struggling to keep students' attention and encourage their desire to learn. As a consequence of this situation, the quality of Arabic language instruction and learning in schools has degraded (Masrop et al. 2019, 3215). Whereas, in every educational context, the learning process must be interactive, inspiring, fun, challenging, and motivating for students to be involved actively. Sufficient space must be provided for initiative,

creativity, and independence based on students' talents, interests, physical and psychological development (Miftah et al. 2020, 185).

As technology becomes more integrated into all aspects of our life, various technological tools and techniques have been used in educational process to improve learning effectiveness (Alsebayel & Berri 2019, 17; Nugraha & Mansoor 2021, 404; Sweidan & Darabkh 2018, 501). The technology industry expanded at a quick pace with technological solutions enabling whatever process, including learning, easier, faster, and more efficient (Sweidan & Darabkh 2018, 501).

Learning by playing is an intriguing form of education that could benefit from technological advancement. Playing is frequently described as a self-indulgent activity defined by means rather than end. When children devote time and energy to play, there seem to be potential for them to learn. The use of game technology in learning can pique students' interest in learning while they are having fun, resulting in learning being implemented along to them (Alsebayel & Berri 2019, 17; Nugraha & Mansoor 2021, 404). Students will be able to follow the Arabic learning process with the expected results if humanistic approach is used through language instructional games (Wahyuningsih et al. 2021, 42).

These innovations have shattered traditional teaching approaches and led schools to a new affective, interactive, and appealing learning methodology (Sweidan & Darabkh 2018, 501). Teachers may initially be hesitant to employ such strategy for a variety of reasons, but they have a positive impression of gamification's effectiveness in teaching Arabic. Students, on the other hand, show a significant preference for gamification and believe that the practice aids in raising their motivation and achieving their objectives (Zoghoul, 2020).

The gaming approach has the advantage of making learning exciting and increasing students' interest and enthusiasm in learning Arabic (Nihayati & Agustriasih 2021, 437). Parents support their children's gaming not solely for educational purposes. They play games with their children for four primary reasons: it is fun for the whole family, they are requested to join, it is a nice chance to connect with their

child, and it is a great way to monitor game contents (Masrop et al., 2019). This can help parents and their children forge stronger bonds as well.

Giving those advantages, studies suggest that Arabic language teachers to receive training in the design, planning, implementation and evaluation of educational games to enrich the experiences of learning and teaching, activate the learner's role and benefit from educational games in providing targeted direct knowledges (Al-Hajj et al., 2020). However, there is a scarcity of studies on preparing the pre-service Arabic teachers to design Arabic instructional games, especially in entrepreneurial context. Hence, the author is motivated to observe a promising learning technique namely project-based learning to inspire higher education students becoming entrepreneurs (Kurniawan et al., 2020; Nanni, 2021; Pinto and K.J., 2021). Given the course title, *Arabiyah Lil Athfal*, and the benefits of integrating learning and playing (Al-Hajj et al., 2020; Alsebayel & Berri, 2019; Zoghoul, 2020), as well as the lucrative gaming business (Masrop et al., 2019; Sweidan and Darabkh, 2018), Arabic educational games were chosen as the product generated from the course. The purpose of this study is to discuss the course material delivery in *Arabiyah Lil Athfal* entrepreneurship course with the aim of training students in the development, preparation, execution, and assessment of Arabic educational games as course goods and outputs utilizing the project-based learning technique. The generated products will be described as the models for Arabic teachers to design such game-based teaching in Arabic classes.

LITERATURE REVIEW

Young learners are defined as children between the ages of 0 and 7 which is often referred to as the "Golden Age" at the time. Early childhood brain development has accelerated to account for 80 percent of total adult brain development (Raharjo & Siswanto, 2021). At this age, the learner is ready to receive easy, fascinating, and exciting information that stimulates his imagination and eagerness for play (Elgamal et al., 2018). The importance of introducing a second language to children in early childhood because it has a positive impact on them, such as boosting self-intellectuality, academic skills, language skills, social skills, it also prepares them to interact with people of different languages and cultures. Motivation, age,

demonstration, first language, and environment are all aspects that influence children's acquisition of a second language (Adiluhung et al., 2022).

Children spend a large portion of their awake time playing as part of their urge to develop their cognitive, motor, and social skills (Masrop et al., 2019). They enjoy playing as they have an innate instinct to grow and progress (Irawan, 2020). Certain gaming features can be used to make learning more enjoyable and rewarding for children. This game approach is beneficial because it may promote intrinsic motivation, provide opportunities for children to practice, make decisions, and develop emotions whether they win or lose, and it is more fascinating and fun so learners can better absorb the lesson material presented. Children's creativity is also expanding since novel ideas originate from children's minds during playing games (Miftah et al., 2020). It was suggested to alter the level of difficulty of gameplay to make it more challenging for children because it is crucial for youngsters to enjoy playing, so the game should not be too easy or too difficult (Masrop et al., 2019).

Game-Based Learning

Learning is described as the modification or reinforcement of behavior on the basis of knowledge (Wahyuni, 2021). It is a dynamic endeavor that attempts to create change via experience. Meanwhile, game or play is an activity that is done for the sake of enjoyment and without regard for the end result. Game activities are undertaken out voluntarily without any constraint or pressure (Irawan, 2020).

Game has always been a part of human life since they were babies, the playing process begins when the body's organs start to adapt to their surroundings (Habibah & Syihabuddin, 2020). Play helps with cognitive growth in a variety of ways. It aids in the development of children's imagination and memory which are necessary for thinking about the past, present, and future. Since the primary goal of games is to entertain, the underlying design incorporates a combination of tricks and strategies to interest players in gameplay (Masrop et al., 2019).

Considering the nature of game and children, game-based learning is becoming a prominent method for enhancing learners' enthusiasm, engagement, and intellectual challenge (Alsebayel & Berri, 2019; Nugraha & Mansoor, 2021; Zoghoul, 2020). When

implemented appropriately, games have the potentiality to complement educational curriculum (Alsebayel & Berri, 2019).

Game also provides a safe environment and inspires children to acquire a second language since children practice fragments of certain other languages while playing, such as *Hello*, *How Are You* and other simple phrases. Because linguistic fragments affect self-esteem, children are increasingly encouraged to expand their vocabulary in a second language (Irawan, 2020).

There are two types of games-based learning according to the technology use: digital game-based learning and non-digital game-based learning.

Digital Game-Based Learning

The words "digital game," "video game," "online games," and "computer games" refer to digital programs that can be operated by individuals or groups of players through the use of a smartphone, tablets, laptop, or a video/console such as a PlayStation or Xbox machine (Masrop et al., 2019). Digital game applications are becoming increasingly prevalent in the lives of both younger and older people; this became essential that any of these be used for the academic achievement and adapted to educational aims (Al-Arefi & al Saud, 2022).

Technology-based active learning is appealing to learners in this digital era since they boost their academic achievement (Khaira et al., 2021; Sweidan & Darabkh, 2018). Digital learning environments, similar to audio or video, are now available massively and easily to people of any age (Elgamal et al., 2018). The number of applications accessible has skyrocketed in recent years (Fuad & Al-Yahya, 2021).

This revolution benefited education greatly by enabling teachers to stay connected with their students through a personal/official website or maybe one of the numerous accessible social media networking sites. As a result, many organizations are interested in using technology in education, and dozens of

seminars and workshops are conducted throughout the world to address this new trend (Sweidan and Darabkh, 2018).

Gaming industry is growing more commercially successful. Electronic games are now a cultural phenomenon for one of the most popular forms of entertainment for children and adolescents (Masrop et al., 2019). As parents and educators, we can and should help students connect to technology so that they will always stay up with the times and use technology as a tool to access constructive things that would help their intellectual, psychological, and spiritual development (Irawan, 2020).

Non-Digital Game-Based Learning

Considering that many of children have not been able to utilize devices for beneficial purposes, we as parents or teachers must be prepared to offer restrictions in the use of technological products such as smartphones for children. Many of them seem to be addicted to online gaming and more likely to neglect their responsibilities and duties. We have even heard of a child committing suicide as a result of losing in an online game (Irawan, 2020).

As technology has infiltrated practically every family recently, a sizable proportion of the population has been afflicted by these emerging addiction disorders without a discrimination between the wealthy and the poor. Unexpectedly, the impact of fast evolving technology on children's developing perceptual, psychomotor, and connection systems is devastating, with long-term negative effects on their physiological, psychosocial, and psychological functioning (Hawi, 2019).

Non-digital games must be retained in addition to utilizing technology items such as gadgets, computers, internet, and online games in hopes of preventing negative impacts from youngsters and compensate them so that their reliance on technology products can be decreased (Irawan, 2020). Furthermore, the results revealed that the most significant constraint of technology application is the high cost of purchasing gadget and its complementary devices, the use of Arabic smartphone applications in

enhancing children's language abilities to read and write also limit its main purpose (al Saud & Al-Arefi, 2021).

Playing can be performed with or without tools. Role-playing practices, for instance, have numerous advantages, particularly in terms of supporting children's linguistic development. Nevertheless, playing a role has a significant impact on general cognitive, psychological, and social development (Irawan, 2020). Another alternative is the outbound strategy which employs an approach based on prior experience or so-called Experiential Learning. Direct experience with a phenomenon makes it easier for students to comprehend the substance of the on-going situation (Bidari & Hidayatillah, 2022).

Arabic Educational Games

Language games are complimentary activities in which students collaborate or compete to achieve their targets in accordance with a predetermined theoretical framework. These educational games are believed to be the ideal media for assisting instructors in their job (Rosalinda, 2021). The majority of learner's language skills are acquired through natural acquisition. Henceforth, while learning a foreign language which is generally done formally, it is desirable to construct or create an informal environment so that the process of obtaining information and language skills can occur more naturally in students (Irawan, 2020).

Games, in addition to being applied to convey learning materials, can also be used to assess learning. Using a variety of creative game strategy, evaluation processes can be presented engaging and entertaining (Habibah & Syihabuddin, 2020). As a formative assessment, game can be a form of evaluation conducted by the teacher during the teaching and learning process with the goal of measuring the success of the learning activities itself (Nafi'a et al., 2021).

The beneficial impact and educational advantages of game-based instruction over printed course materials have been reported in terms of advancements in learners' listening comprehension, vocabulary knowledge, writing abilities, communication, grammatical accuracy, general fluency, pronunciation, and reading comprehension in the target language (Masrop et al., 2019).

Learning languages while playing has benefits for language development or communication; play helps children build communication skills; play gives space and time for children to engage with others; and by playing, children interact to each other, voice their viewpoints, negotiate, and find a middle ground for any problem that develops during the play. This moment of role-playing sessions is particularly enjoyable for them (Irawan, 2020). Alongside language skills, positive effects in improving learners' intercultural awareness and intercultural communicative skills have been observed, because serious games presented learners with an invaluable opportunity to genuinely experience the target culture (Masrop et al., 2019).

Project-Based Learning

Project-based learning is a learning technique that guides students through the real work process to follow systematic and regulated work practices to create or complete a product. It is provided as a tool for students to enhance their entrepreneurial skills and encouraged them to continue learning more than they might gain in class theoretically (Pinto & K.J., 2021). The product-based learning paradigm includes processes that assist students in actively learning, participating, interacting, and being competent to produce the required output. Aside from being collaborative, product-based learning should be original, unique, and focused on solving problems relevant to the learners' circumstances or the demands of society (Kurniawan et al., 2020).

In inclusive classrooms, project-based learning (PBL) has the potency providing constructive and cooperative learning experiences that enhance students' intellectual and interpersonal academic skills, including opportunities for students to feel creative, broaden their perspectives on the world, boost essential literacy skills, collaborate with peers, and make choices in their learning. (Boardman & Hovland, 2022). In this circumstance, the instructors solely saw themselves as facilitators of efforts carried out in the class, leading in a student-centered atmosphere. (Latifaj, 2022). To be deemed a standardized project-based learning, five conditions must be met: centrality, driving issue, constructive investigations, autonomy, and realism. (Nanni, 2021).

Project-based learning (PBL) and gamified learning have received broad attention due to the continual growth of information technology and the

comprehensive needs for students' competence. Some scholars have begun to investigate the integration and complementarity of PBL with gamified learning, and have begun to put gamified PBL instructional models into practice in a variety of educational domains (Huang et al., 2022).

RESEARCH METHODS

This study used general qualitative methodologies to analyze the processes by which the *Arabiyah Lil Athfal* Entrepreneurship course at Indonesian State Islamic University (IAIN) of Kediri prepares pre-service teachers to develop Arabic educational games through project-based learning. As such, it maintains several fundamental properties. These include some research design flexibility, the consideration of multiple realities, data collecting by the researcher, and the inclusion of participant perspectives as important data. The purpose of qualitative research is to investigate an issue and gain a thorough grasp of a specific occurrence. The choice of qualitative tradition has far-reaching ramifications for all parts of the research. For example, data are gathered from a limited number of people, providing for depth rather than breadth of coverage. The qualitative method has an impact on data analysis, which entails the development of themes to investigate the meaning of the data. All of these traits fit with the study's purpose, making qualitative research the best option.

The research subjects are students enrolled in the *Arabiyah Lil Athfal* Entrepreneurship programme in 2021 which was conducted online due to pandemic. The total number of pupils was 38, with 29 females and 9 males. Observation and documentation were used to collect data. Observations were carried out to gather data on how project-based learning was implemented in the course using five criteria: centrality, driving question, constructive investigations, autonomy, and realism (Nanni, 2021). In this scenario, the author served as both a course lecturer and an observer. Meanwhile, documents were gathered to describe the course content and deliverable course products. The triangulation technique and descriptive analysis were used to analyze all of the collected data.

DISCUSSION

By offering more job opportunities, entrepreneurship plays a key role in national economic development. Unfortunately, the number of entrepreneurs in Indonesia remains low. For the reason that entrepreneurial skills can be learned, universities are viewed as a possible source of supply for creating entrepreneurs through entrepreneurial courses. Despite the fact that the Indonesian government and the Ministry of Higher Education strongly advocate entrepreneurship in higher learning, most university graduates are still hesitant to become entrepreneurs (Setiawan & Lestari, 2021). It was observed that there is a need to include certain innovations in course material delivery methodologies and assessment in order to boost students' entrepreneurial and social competences (Pinto & K.J., 2021).

Arabiyyah Lil Athfal Entrepreneurship Course

Students majoring in Arabic Education at Indonesian State Islamic University (IAIN) Kediri are supposed to select one of three projected alumni profiles: Arabic language translator, Arabic technology-based teaching aid developer, or Arabic education entrepreneur. To meet those expectations, the Arabic Education (PBA) study program includes ten credits for each elective profile. Those 10 credits are divided into five elective courses. For the Arabic education entrepreneurial profile, there are sequential courses namely *Arabiyah Lil Athfal* (Arabic for Kids), *Tasmim Manhaj Li Aghraadin Khaassah* (Arabic for Specific Purposes), Course Management, Arabic Dialects, and Arabic for Hajj and Traveling.

Arabiyah Lil Athfal class in 2021 had been taught over the course of 16 meetings, which include the introduction, discussion, mid test, reviews, and final exam. Overall, the discussion topics consisted of three main subjects: children characteristics, Arabic educational games, and product development. The students learned about children's traits, cognitive and linguistic development, as well as game-based learning techniques for children over the first four meetings. Subsequently, the students searched for references to Arabic educational games to learn Arabic language features and to assess Arabic competences such as *Mufradat, Qiraah, Kitabah, Kalam, Istima',* and *Qawa'id* during the next four meetings. The students developed their own Arabic educational games as course products for the remaining four meetings and prepare to showcase them in a webinar inviting Arabic instructors and Arabic

enthusiasts to promote and simulate their products. This webinar served as the course's final test and an attempt to achieve project-based learning standards.

Project-Based Learning in *Arabiyah Lil Athfal*

The need for project-based learning is meant to enhance students' entrepreneurial spirit, in this case, Arabic entrepreneurial spirit (Kurniawan et al., 2020). Five requirements must be completed to be considered a standardized project-based learning: centrality, driving question, constructive investigations, autonomy, and realism (Nanni, 2021).

Centrality

Centrality is that the project must be a substantial component of the course. To meet this criterion, the course lecturer emphasized that the major purpose of the course is to create a product which is Arabic educational games. In addition to participating in the lecture and discussing the underlying theories throughout the course, the lecturer encouraged students to hunt for references to popular Arabic educational games in a variety of both real and virtual markets. They would have images of how the Arabic educational games were expected to develop once they had completed all of the discussion topics.

Driving Question

The *driving question* implies that the project must be developed around a question that encourages students to interact with key ideas in a specific academic area. The questions arose from the course's discussion of the theoretical foundations, such as whether the product was suitable for learning or assessing Arabic lessons, what ages were recommended to play the Arabic games designed, what kind of language features would be evolved by playing the games, what materials were used to design the product to make it safe for children, whether the price of the products was reachable by society or not, and so forth.

Constructive Investigation

Constructive investigation requires the development of new skills and information to answer the driving question. The project was not just designed to reinforce existing knowledge and capabilities. It was critical to specify that the product was relatively unique and capable of resolving the problems in the Arabic learning process, such as monotonous teaching methods, demotivated learners, lack of vocabularies, listening problems, speaking discouragement, reading difficulties, and writing issues.

Autonomy

Autonomy signifies that student must embrace a considerable amount of responsibility for their own learning; the project is not "teacher directed, scripted, or packaged." In this scenario, students independently discussed with the team about the product they intended to build, the actions they should take, the evaluations they needed to undertake to improve the product's quality, and so on. The lecturer possibly guided the students by asking constructive questions, but the final decision was up to the students.

Realism

Realism demands that the project incorporate as many real-world resources, audiences, and content as possible. On December 19, 2021, the students demonstrated their designed product in front of audiences via webinar utilizing the Zoom Meetings platform. The students created the poster themselves and successfully invited 92 of pupils, teachers, Arabic enthusiasts, and others. As part of the evaluation process, webinar participants were asked to complete questionnaires provided by the students in order to improve the quality of their product.

Figure 1. Webinar Poster

Generated Arabic Educational Games

The total 38 students in *Arabiyah Lil Athfal* class were divided into six groups consisted of 6 to 7 students for each group according to the expected 6 types of outputs: Arabic vocabulary game, Arabic listening game, Arabic speaking game, Arabic reading game, Arabic writing game, and Arabic structure game.

Puzzle Mufrodat (Arabic Vocabulary Game)

Figure 1. Puzzle Mufrodat (Arabic Vocabulary Game)

This game is based on the traits of toddlers who enjoy playing while learning. Group 1 created a vocabulary game board to help teachers teach

Arabic by allowing children to play while memorizing words. This game improves other language abilities such as listening, reading, and speaking in additional to vocabulary. The product is recommended for kids aged 6 to 12 years old and costs 55.000 IDR (about $3.93 USD). Following the webinar simulation, attendees recommended that the product quality materials be improved by laminating the paper product with plastic to make it more durable.

Papan Tarkib Man Hadza (Arabic Structure Game)

Figure 2. Papan Tarkib Man Hadza (Arabic Structure Game)

The product was inspired by students' lack of enthusiasm in learning Arabic since they felt it was a difficult language. This product, built effectively and efficiently for children aged 6 to 12, is intended to increase students' abilities in Arabic grammar, particularly in *Ism Isyarah* and *Musyar Ilayh*. Along with Arabic grammar, speaking and reading skills are expectedly improved as well. This item costs 50.000 IDR, or approximately $3.57 USD.

Video Animasi Hiwar (Arabic Listening Media)

Figure 3. Video Animasi Hiwar (Arabic Listening Media)

This product, unlike prior games, can be played without a partner. Learners of all ages are able to watch samples of Arabic *hiwar* (conversation)

in animated cartoon format to train children's hearing in Arabic phones, grasp Arabic phrases, develop children's Arabic vocabularies, and help them to mimic Arabic sentences. This product relies on Google AdSense to profit because it uses YouTube as a platform to publish videos.

Flash Card Animal Series (All Arabic Language Skills)

Figure 4. Flash Card Animal Series (All Arabic Language Skills)

This 4th team was inspired to create Arabic Flash Card Animal Series by the flexibility of flash cards to be utilized in any type of language game. This product is initially intended to improve Arabic speaking; nevertheless, after playing it with friends, this product is possibly used in a variety of games for all language skills. The product is recommended for children aged 4 to 7, and it costs 15.000 IDR (about 1.07 USD). Other Flash Card series, such as fruit and vegetables, are suggested for mass manufacture.

Buku Anak Bergambar (Arabic Comic Book)

Figure 5. Buku Anak Bergambar (Arabic Comic Book)

The lack of fascinating Arabic literature for children motivated this group to develop an Arabic comic book for children. This product, which features gorgeous illustrations in a story, is intended to encourage children to enjoy reading, particularly in Arabic language. This product is recommended for adolescents over the age of nine years old and costs 25.000 IDR (1.8 USD).

Tartibul Huruf (Arabic Writing Game)

Figure 6. Tartibul Huruf (Arabic Writing Game)

Writing Arabic letters can be tricky at times since some letters can be joined with other letters while others cannot. This product was produced with the goal of assisting school children aged 4 to 12 years to practice Arabic writing in a pleasant way. The product, which costs 35.000 IDR or 2.5 USD, is advised to be mass-produced utilizing wood material to make it more sustainable and safer for children.

CONCLUSION

Game helps children develop communication skills; game provides space and time for children to engage with others; and by gaming, children communicate with one other, speak their opinions, negotiate, and find a middle ground for any problem that arises during the play. To train pre-service teacher in the design of Arabic educational games, *Arabiyyah Lil Athfal* entrepreneurship course in IAIN Kediri implemented project-based learning paradigm because it aids students in actively

learning, participating, interacting, and becoming competent to provide the requisite output.

Project-based learning in *Arabiyah Lil Athfal* class had met some standardized criteria. The project had been proven to be a significant component of the course to be considered central. The driving question suggested that the project must be built around a question that allows students to interact with key questions in particular ideas, such as benefit for language learning, safety for children, and so forth. Constructive investigation was applied in order to solve the driving question. Autonomy implied that students had to accept significant responsibility for their own learning. In this scenario, students independently discussed the product they planned to produce with the team, the steps they should take, the assessments they needed to conduct to increase the product's quality, and so on. The lecturer might help students by asking helpful questions, but the final decision was theirs. Realistic projects must had been successfully conducted through a webinar, which also served as a final test, attended by 92 audiences from teachers, students, Arabic enthusiasts, etc.

Arabic educational games generated from *Arabiyah Lil Athfal* course were varied from Arabic language features and cost between 15.000 IDR up to 55.000 IDR (about 1 to 4 USD). Most of them were still in the form of prototype which needed some transformation before they were ready to be mass-produced. Some changes were suggested to be made to materials and designs to make them more sustainable and safer for children.

It is advised that future studies consider to implement the feedback given by the audiences in realism stage to evaluate the prototype products of the students.

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