Development of PAI Game Learning Media to Improve Student Learning Outcomes

Astrifidha Rahma Amalia[1]*, Ikhsan Setiawan[2]

[1]Politeknik Negeri Malang, Indonesia

e-mail: astrifidharahma@polinema.ac.id

[2]Politeknik Negeri Malang

e-mail: Ikhsan.setiawan@polinema.ac.id

*Corresponding Author

Abstract: The purpose of the study is to describe the product design of learning media by game tajwid matching and the impact of using this learning media for Elementary School Level. The type of the research is Research and Development based on the model of ADDIE. Data collection technique that researcher used are questionnaire and test both pre-test and post-test. And data analysis was carried the content analysis, descriptive, and T-test. The result of research conducted by researchers can be concluded that: 1) The product of development is game of tajwid matching. The product has been validated by some experts i.e. lear ning material expert get the percentage of 92%, media design expert get the percentage of 88%, and from the teacher get the percentage of 88%. This mean that the game is fair enough to be implemented for learning process in the class. 2) The game of tajwid matching is effective to increase the learning result. The product proven significantly to improve the learning result and be able to be seen in the average of post test score is greater than post-test (77,42>94,84). Based on the T-test calculation resulted that $t_{count}>t_{table}$ (7,2759494>2,036933334) means that Ha was accepted and Ho was rejected.

Keywords: Development of Learning Media, Game Tajweed Matching, Learning Result

Abstract: Tujuan penelitian untuk mendeskripsikan desain produk media pembelajaran permainan tajwid match dan dampak penggunaan media pembelajaran ini untuk Tingkat Sekolah Dasar. Jenis penelitian yang digunakan adalah Research and Development dengan model ADDIE. Teknik pengumpulan data yang peneliti gunakan adalah angket dan tes baik pre-test maupun post-test. Dan analisis data dilakukan dengan analisis isi, deskriptif, dan uji T. Hasil penelitian yang dilakukan peneliti dapat disimpulkan bahwa: 1) Produk pengembangan berupa permainan mencocokkan tajwid. Produk telah divalidasi oleh beberapa ahli yaitu ahli materi pembelajaran memperoleh persentase sebesar 92%, ahli desain media memperoleh persentase sebesar 88%, dan dari guru memperoleh persentase sebesar 88%. Artinya permainan tersebut cukup adil untuk diterapkan dalam proses pembelajaran di kelas. 2) Permainan mencocokkan tajwid efektif meningkatkan hasil belajar. Produk terbukti secara signifikan meningkatkan hasil belajar dan terlihat pada rata-rata nilai post test lebih besar dibandingkan post test (77,42>94,84). Berdasarkan perhitungan uji T diperoleh $t_{count}>t_{tabel}$ (7,2759494>2,036933334) artinya Ha diterima dan Ho ditolak.

Kata Kunci: Pengembangan Media Pembelajaran, Permainan Tajwid Matching, Hasil Belajar

Introduction

Religious Education is one of three subjects that must be in the curriculum of every formal education institution in Indonesia in addition to Pancasila / Civic Education and Indonesian. Even in Higher Education, Religious Education isa general compulsory subject that must be taken by students in order to complete their studies. Religious life is one dimension of life that is expected to be realized in an integrated manner from birth to the end of life (Chabib Toha, 1999) Comprehensively, Pendidikan Agama is a conscious and planned effort to create situations and learning processes so that students can actively develop their potential spiritually both in intelligence, character and *skill* through guidance to achieve agoal.(Anggraheni dkk., 2023)

In simple terms, Islamic Religious Education consists of 2 root words, namely Education and Islam. Education is actually directed to develop the potential that exists in humans. The development of education is influenced by global changes, advances in science and technology and culture (Kastori, 2022). Such changes will encourage individuals to be better in every aspect. As stated in Law of the Republic of Indonesia No. 20 of 2003 which states that: "National Education is education that refers to Pancasila and the 1945 Constitution of the Republic of Indonesia and is based on religious values, Indonesian national culture, and is reactive to the demands of the times." (Ikhwan, 2015). Meanwhile, Islamic Religious Education covers all activities to develop potential based on Islamic teachings so as to obtain happiness in the world and the hereafter.

The scope ofIslamic Religious Education covers the harmony of human relations with 1) Allah *subhanahu wata'ala*, 2) oneself, 3) fellow humans, and 4) other beings and nature (Majid, 2004) The scope of Islamic Religious Education consists of the Qur'an Hadith, moral creed, *fiqh*, and *Tarikh*. At the public elementary school level, the coverage is summarized in one subject, namely Islamic Religious Education. PAI at the elementary level aims to learn, deepen, enrich knowledge about the Qur'an and Hadith, especially basic knowledge as preparation for continuing education at the next level.(Locita dkk., 2023)

Regarding the subject of Islamic Religious Education, graduate competency standards that must be achieved at the elementary school level include conveying, memorizing, reciting, and translating short letters in the Qur'an, behaving commendably, and being able to realize religious teachings in order to become obedient and commendable moral people (Menteri, 2006). As an effort to be able to make students able to recite short letters in the Qur'an, the material about tajweed needs to be considered where *tajweed* is a science that explains the rules for reading the Qur'an according to the teachings of the Prophet of Allah. *Tajweed* material delivered by teachers still often uses the lecture method because it is considered an effective way. In fact, the learning process using the lecture method can indeed attract the attention of students but only until the initial 10 minutes and the rest will decrease (Asiah, 2021). Therefore, a method is needed that can attract the attention of children in the age range of 6-12 years such as playing games because in essence every child has a soul to play.

An alternative solution that can be done is to make games that are educational for students. Rumbold states that games that have a clear direction are an important part of the learning process for children. Games serve as powerful motivators, can encourage children to be creative, and develop their ideas, understanding, and language. Through games, children will explore, apply, and test what they know and what they will do (Neville Bennet, Liz Wood, 2005) Meanwhile, according to Reaminn O Donnchadha in his book entitled "The Confident Child" mentioned that games will provide opportunities to learn how to deal with personal life situations and learn to solve problems. For this reason, this educational game will be able to motivate children in the learning process and hopefully will also improve children's skills in language, socializing, and thinking.(Zasrianita dkk., 2022)

Based on this background, the researcher wants to present an article based on research that has been conducted on students and students who are in grade 4 SDN Mangliawan 3 Malang. In relation to this, there are several previous studies that are used as a reference for writing, including research conducted by Muhammad Fatchul Aziz (2015) on *the Development of Qur'an Learning Media Hadith based on Autoplay Media Studio Qalqalah Reading Law Material Class VII Madrasah Tsanawiyah Negeri Jabung Blitar.*

Literature Review
Learning Media

Learning media consists of 2 words, namely "media" and "learning". Media are people, materials, tools, or events that allow learners to acquire knowledge, skills, or attitudes. In this context, teachers and textbooks and the school environment are media. Specifically, media in the teaching and learning process is further defined as graphic, photography, or electronic media tools that capture, process and reconstruct visual and verbal information (Arsyad, 2017) In its development, the media has also been editedwidely and narrowly by several experts. As for the definition of learning, the priority is how the learners learn. Learning is termed as a person's mental activity in interacting with the environment and learning resourcesso that it can produce relatively constant behavioral changes. Thus, the important point of learning is how the learning environment and resources are created by arranging every element including the media used to changeone's behavior from

less understanding to more understanding. So, the so-called learning media is media or tools that are used to help the learning process. (Hanipudin dkk., 2023)

Educational Games

According to Kemp & Dayton, one of the functions of learning media isto create a learning atmosphere that is more interesting, interactive, as well as can shorten the time in delivering material (Arsyad, 2017) Interestingly, media can also be given anytime and anywhere. One form offun learning media is educational games. A game activity can be called an educational game if it meets 5 elements as follows (Ismail, 2009)1) has a purpose, 2) no coercion / free choice, 3) fun, 4) develops imagination and creativity, and 5) actively and consciously.

Educational games are designed in such a way for learning purposes. With this game, it is hoped that students *can enjoy* all learning activities. Not only that, teachers can also use the gameas a tool to observe and evaluate the learning outcomes of students. In short, educational games are actually very helpful for the learning process for teachers and students. The form of the game that has been made by researchers is *matching games* (gamesthat ask players to match with similar elements). Actually, there are many types of games that have a matchmaking system, including ONET, Pikachu, Purble Place, and many others. Games with this type are not onlysuitable but also give players the challenge of analytical skills (Ardisasmita, 2015). The faster the answer, the greater the value obtained.

Tajweed Material

Studentseducated at the elementary level are expected to be able to read the Qur'an properly and correctly. One of the efforts made is the provision of tajweed material in each subject of the short letter studied. *Tajweed* is the science of learning how to express the reading of the text of the Qur'an including characters, pronunciation (*makhroj*), and *ahkamul letters* (Ahmad Muthohhar, 2012). The science of *tajweed* functions asa reference in reading the Qur'an correctly. A person who reads without tajweed will cause *lahn* (error) and have a negative impact on the value of worship even to the point of canceling worship if it is obeyed intentionally because the letters read do notmatch *tajweed* will cause misinterpretation. The purpose of the science of *tajweed* was explained by Shaykh Muhammad Al Mahmud that:

غايته بلوغ النهاية في إتقان لفظ القرآن على ماتلقي من الحضرة النبوية الافصحية وقيل غايته صون اللسان عن الخطاء في كتاب الله

the point is that the science of *tajweed* aims to be *fluent* in reading the Qur'an but still stay on the rules of the teachings of the Prophet of Allah.

In the learning media that is carried out to be experimented with students, researchers only limit it to the law of reading nun breadfruit and tanwin and the law of mim breadfruit because it is still classified as RPS. The short letters contained in RPS are Surat Al Maa'un and Surat Al Fiil. Next, researchers began to identify the law of reading specified in both short letters.

In Surat Al Maa'un it is found that there are 3 laws of reading, namely: *idgham bilaghunnah, idhar shafawi,* and *ikhfa'*. As for Surat Al Fiil contains 5 laws of reading nun sukun / tanwin and mim sukun, with the following details: Idhar *Shafawi* is found in 5 places, *Idhar Halqi* in 1 place, ikhfa' *syafawi and ikhfa'* in 1 place each and the last one is *Idgham Bighunnah* in 2 places.

Student Learning Outcomes

Learning is said to have results if there is a change from the initial condition. Learning outcomes are obtained by students after receiving the learning process through stages called evaluation. Evaluation is carried out by providing scores through assessment, measurement, and comparison between the objectives of learning with the resultsachieved. Evaluation is not only to find out the scores of students but also to measure the success rate of both methods, media, or strategies used during the learning process. As explainedby Dimyati and Mudjiono, learning outcomes are used for the following purposes, namely for diagnosis and development tools, tools for selection, tools for completeness to the next level, and tools for placement. The success rate isindicated by a scale of values in the form of letters, numbers, and words / symbols.

Before deciding to use game media, researchers must know the characteristics of students at the elementary level. The elementary level is categorized in the age range of 6-12 years. Atthese ages, they have a tendency to think using logic. Piaget classified this age at the operational concrete stage, where the child has begun to understand the system logically based on concrete objects. Those at theelementary school level have the characteristics: 1) enjoy games, 2) enjoy movement, 3) enjoy working in a group, and 4) enjoy experimenting directly (Sugiyono, 2016) From this basis, teachers should begin to develop learning that contains elements of play that provide opportunities for students to be directly involved in learning.

Method

The type of research used is research and development (*Research and Development*). This research aims to be able to produce a product in the form of a tajweed learning medi in accordance with the needs analysis which is then tested on the effectiveness of the product. The development model used is the ADDIE model, one of the learning system design models that shows the basic stages of learning system design that is simple and easy to learn with stages:

1. (A)nalysis, which is conducting a needs analysis to determine problems and solutions

2. (D)esign, namely determining the objectives, methods, teaching materials, and strategies of learning

3. (D)evelopment, i.e. producing learning programs

4. (I) mplementastion, namely carrying out learning programs and

5. (E)valuation, namely evaluating the learning program.

The data collection instruments used are questionnaires, validation sheets, and student learning outcomes. Validation sheet questionnaires are used to measure the validity of media created by researchers. Media validity is validated by 3 validators, namely material content validators, design validators and PAI teachers. Then for effectiveness measured by looking at the learning outcomes of students by giving pre-test and post-test to them. The questionnaire data analysis technique uses the Linkert scale with a range of values of (5) very good, (4) good, (3) sufficient, (2) kurang, (1) very lacking. And for student learning outcomes, researchers use the 5x10 formula (multiple choice answers and 10x5 (short answers). Researchers used a *random sampling* method by selecting 1 class taken from grade 4 students of SDN Mangliawan 3 Malang with a total of 33 students. Student learning outcomes will be carried out using an experimental design model (*before-after*). After getting the pre-test and post-test results from students, it will then be analyzed with a t test to test the correctness of the hypothesis. The hypothesis that is assumed is that there is a significant change after students use *tajweed matching* learning media.

Results and Discussion

The development process in this research follows theADDIE development procedure, which consists of the steps instructed in the design model as follows:

1. Analysis

    Activities at this stage are carried out to determine and define development requirements or often dinamakan needs analysis. Researchers conducted several analyses:

    a. Curriculum Analysis

        This study was conducted as an effort to determine the material that must be given to students, namely the sub-subject of Islamic education about Surat Al Maa'un and al Fiil. It is known that in the latest curriculum syllabus of PAI in semester 2 grade 4 elementary school there is a learning material "Let's Learn Q.S Al Maa'un and Al Fiil" where the basic competencies that are suitable for the development of this game product are: 1.1 Accustomed to reading the Qur'an with tartil, 3.1 Reading Q.S Al Maa'un and Al Fiil with tartil, and 3.2 Writing sentences in Q.S Al Maa'un and Al Fiil correctly including the law of reading from fragments of words that is in the short letter.

    b. Analysis of *Tajwid* Material in Q.S Al Maa'un and Al Fiil.

        The material provided in this *tajweed matching* game will later adjust to the law of reading nun breadfruit / tanwin and mim sukun contained in Q.S Al Maa'un and Al Fiil. There are 6 laws of reading nun sukun / tanwin and mim sukun in these letters, namely idgham bilaaghunnah, idhar syafawi, ikhfa', *idhar halqi, ikhfa' syafawi, and idgham bighunnah.*

2. Design

    It is the second step in the ADDIE procedural process after *a need assessment* is carried out, and material that needs to be developed is obtained. At this stage, researchers draft media development. After the material is collected, a draft / draft is made both in the form of content format and appearance.

3. Development

    The main step in this ADDIE method is the stageof developing and making media. The results of the development of *tajweed matching* game media based on input from validators can be seen in figure 1.

Figure 1 *Tajweed Matching Game*

4. Implementation

The results of the development are then applied to the research class to further be known to have an effect on improving student learning outcomes in PAI material for grade 4 elementary schools. The trial was carried out on grade 4 students of SDN Mangliawan 3 Malang totaling 33 students with an allocation of 2 hours (120 minutes). Activities consist of: Introduction (efforts to prepare the conditions for students to follow the lesson), Core Activities (pre-test test, material delivery, implementation of *tajweed matching* game media), Closing (post-test test to see the level of mastery and learning outcomes and material review).

5. Evaluation

Evaluation is carried out by testing the validity of the developed media. The validity test of learning media was carried out by 3 validators, namely through the validation of material experts, design experts who were two lecturers from the Faculty of Tarbiyah Department of PAI UIN Maliki Malang and learning experts (PAI teachers grade 4 SDN Mangliawan 3 Malang). The results of the validity assessment based on the assessment aspect can be seen in table 1

Expert Validation Assessment Results
Table 1. Material Expert Validation Results

Elements	Material Expert	Eligibility Percentage	Design Expert	Eligibility Percentage	Learning Experts	Eligibility Percentage	Validity Criteria
1	KD Compliance	80%	Suitability of the message to the subject matter	80%	Teaching materials make it easier for students	100%	**Valid**
2	Compliance with indicators	100%	The message clearly does not cause double interpretation	80%	Accuracy of using teaching media	80%	**Valid**
3	The material is easy to understand	100%	Order of presentation	100%	Size and typeface used	80%	**Valid**
4	The material is according to the needs of students	100%	Game view	100%	Clarity of material exposure	80%	**Valid**
5	Conformity with Islamic values	80%	Completeness of information	80%	Compatibility between image and material	100%	**Valid**
6	Pictures according to the material	100%	Use of fonts (type and size)	80%	Teaching media helps students understand the material	100%	**Valid**
7	Audio according to the material and game	100%	Layout, layout	80%	Clarity of the Quiz	80%	**Valid**
8	Writing readability	100%	Harmonious coloring	100%	Clarity of the order of presentation of the material	80%	**Valid**
9	Clarity of information	80%	Illustrations, drawings, photos	100%	Game media attracts students	100%	**Valid**
10	Effective and efficient use of language	80%	Display design	80%	Effective and efficient use of language	80%	**Valid**
	Validity Value	**92%**		**88%**		**88%**	**∑=89.333%**

Based on table 1, it can be concluded that the validator's assessment on the material aspect reached a score of 92% with a valid category. Furthermore, validators' assessment on aspects of media design gets a score of 88% which means valid. And for validator assessments in the learning aspect, they achieved a valid score of 88%. Based on the three validators, it is known that the average score reaches 89.333%, which means that the learning media is valid and can be tested in class.

Field Test Results

In field trials using the "before-after" model, it is intended that the development product can be assessed for its effectiveness after conducting pre-test and post-test. The results of the pre-test and post-test were then processed and carried out a t test. It was found t_{count} with the number 7.2759494. Next, compare between t $_{count}$ with t_{table}. The formula is, if t $_{count}$ is greater than t table, then Ha (final hypothesis: there is a significant difference before and after given media) is accepted and Ho (initial hypothesis: there is no significant difference before and after given media) is rejected. In this field test, when compared between t count and t table, the result t $_{count}$ is greater which is 7.2759494 compared to t_{table} which is 2.036933334 which means Ha is accepted and Ho is rejected so that there is a significant difference before and after being given media. This proves that *tajweed matching* games can improve the learning outcomes of grade 4 students of SDN Mangliawan 3 Malang.

Conclusion

From this research, it can be concluded that *tajweed matching game* learning media has been successfully developed. The learning media developed has a relatively high validity value so that it can be categorized as suitable for use based on expert considerations. In addition to helping to improve student learning outcomes, this media is also expected to be able to increase the motivation and interest of students to be actively involved in the learning process. The researcher also suggested that teachers and students can use the media as an alternative media in studying Islamic Religious Education material in the tajweed subsection.

References

Ahmad Muthohhar, H. A. (2012). *Thufatut Thulab*. Tri Jayaguna Offset.

Anggraheni, U. S., Nurhuda, A., Ni'am, S., & Ni'mah, S. J. (2023). The Concept Of Educational Evaluation In Islamic Perspective. *Nusantara Education*, *2*(2), Article 2.

Ardisasmita, A. (2015). *Matching Images, Game yang Menantang Daya Ingat dan Juga Logika*. www.dailysocial.id. https://dailysocial.id/post/matching-images-game-yang-menantang-daya-ingat-dan-juga-logika

Arsyad, A. (2017). *Media Pembelajaran* (cetakan 20). Rajawali Press.

Asiah, N. (2021). *Inovasi Pembelajaran (Analisis Teori dan Praktik Mendesain Pembelajaran)*. Penerbit Kepel Press.

Chabib Toha, D. (1999). *Metode Pengajaran Agama*. Pustaka Pelajar.

Hanipudin, S., Nasihah, N. A., & Subki, T. (2023). Analysis of the Impact of Instilling Religious Moderation on Students' Social Attitudes. *Nusantara Education*, *2*(1), Article 1.

Ikhwan, W. K. (2015). Implementasi Standar Isi, Standar Proses, Standar Lulusan Sebagai Standar Mutu pendidikan MTs Negeri Di kabupaten Tulungagung. *Pedagogia : Jurnal Pendidikan*, *4*(1), 16–22. https://doi.org/10.21070/pedagogia.v4i1.68

Ismail, A. (2009). *Education Games*. Pro U Media.

Kastori, R. (2022, November 2). Dampak Berkembangnya Ilmu Pengetahuan dan Teknologi Akibat Globalisasi. *www.kompas.com*.

Locita, A., Wicaksono, A., & Sulistyani. (2023). LEARNING STRATEGIES USED BY STUDENTS IN SPEAKING CLASS AT LC (Language Center) IN KAMPUNG INGGRIS PARE, KEDIRI. *Nusantara Education*, *2*(1), Article 1.

Majid, A. (2004). *Pendidikan Agama Islam Berbasis Kompetensi Konsep dan Implementasi Kurikulum 2004*. Remaja Rosdakarya.

Menteri, P. (2006). *LAMPIRAN PERATURAN MENTERI PENDIDIKAN NASIONAL NOMOR 23 TAHUN 2006 TANGGAL 23 MEI 2006*. 1–13.

Neville Bennet, Liz Wood, S. R. (2005). *Teaching through Play* (hlm. 161). PT. Grasindo Anggota Ikapi.

Sugiyono. (2016). *Karakteristik Siswa SD*. http://staff.uny.ac.id/sites/default/files/tmp/Karakteristik Siswa SD.pdf

Zasrianita, F., Hamza, S., & Winata, H. (2022). Students' Perception Of Application In Writing Of Peer-Assessment: Before And After Revision. *Nusantara Education*, *1*(1), Article 1.