Edukasi Islami: Jurnal Pendidikan Islam, VOL: 12/NO: 04 November 2023 **P-ISSN: 2252-8970**
DOI: 10.30868/ei.v12i04.4856 **E-ISSN: 2581-1754**

Development of Multimedia Interactive To Improve Early Children's Language Skills

Dwi Rulismi[1], Mesterjon[2], Sudarwan Danim[3], Nina Kurniah[4]

[1,2]Universitas Dehasen Bengkulu, Indonesia
[3,4]Universitas Bengkulu, Indonesia
Corresponding author e-mail: *dwirulismi@unived.ac.id*

ABSTRACT

This research aims to develop interactive multimedia as teaching materials specifically designed to improve language skills in early childhood. The development method used follows the R&D approach. This study used a sample size divided into two groups. Data was obtained through observation, interviews, and written tests. Data was analyzed using average scores, percentages, and t-tests. where the results of the t-test research that has been carried out are 8.551, then the t-count > t-table value where the t-count is 8.551 from the t-table 2.048. This can be interpreted as significant. The research results show that the interactive multimedia developed is suitable for use in improving language skills in early childhood. This conclusion is based on the results of limited and extensive tests. This development model has proven effective in significantly improving children's language skills. From this research, the researcher concludes that the advantages of developing media in the form of animations, videos, and sound make it more engaging, flexible, and usable online through provided links, and it can also be operated offline using a disk. It also employs attractive cartoon animations that are easy to operate and will be more readily understood by students. Interactive multimedia can capture students' attention and enhance motivation in the teaching and learning process, resulting in improved language skills in learning. This interactive multimedia is equipped with user-operated control tools, allowing users to choose what they desire for the learning process. Additionally, multimedia can also be used to present material using both words and images, where "words" refer to the presentation of the content in a verbal or textual form.

Keywords: **Development, Teaching Materials, Language Skills**

A. INTRODUCTION

Early childhood education is a coaching effort aimed at children from birth to six years of age which is carried out through providing educational stimuli to help physical and spiritual growth and development so that children are ready to enter further education. This age is a very determining age in the formation of a child's character and personality (Masitoh dkk., 2005). Opinion (Maghfiroh & Suryana, 2021) Early Childhood Education is a stimulating and stimulating effort carried out for newborn children to help the child's growth and development, both physically and spiritually so that the child is ready to enter further education.

Early Childhood Education (PAUD) is implemented on the basis that most parents feel unable to provide the best education for their children. Same opinion (Tanu, 2017)Families still tend to be rigid in educating their children. Meanwhile, children's needs for language development are influenced by parents' treatment of children from an early age. Where the provision of education for early childhood in developed countries has actually been going on for a long time as a form of community-based education, the importance of education for early childhood in building children's future.

Early childhood education is still limited in terms of numbers and accessibility and play groups are still concentrated in traditional patterns. In its implementation, teachers still use paper leaflets and draw manually on blackboards, still using media such as books, magazines, cards, letters, posters, and so on. Therefore, research needs to be carried out to develop interactive multimedia-based teaching materials.

Interactive multimedia learning is a learning program that combines text, images, video, animation, etc., which is integrated with computer assistance to achieve learning objectives and users can interact with the program actively. In the development of this teaching material, it was prepared and designed using the Microsoft PowerPoint application and the benime application and its natural application which supports the process of making teaching materials, where the application can combine video, audio and animation at the same time.

Teaching materials can be a set of materials/substances that are arranged systematically, that teaching materials can also be composed of a combination of information, tools, or texts that are arranged systematically, teaching materials also do not only consist of a collection of knowledge or a collection of information, but also must be is a well-planned unity of knowledge. Same opinion (Nurdyansyah & Mutala'liah, 2015) where teaching materials are

all forms of materials used in learning. According to (Kosasih, 2021) Teaching materials are something used by teachers or students to facilitate the learning process.

The types of teaching materials are divided into several types based on the technology used, including: (1) Printed materials which we usually know in the form of handouts, posters, modules, textbooks and pictures. (2) Audio teaching materials for example are cassettes, radio, vinyl records, and anything that can produce sound and can be understood. (3) Audiovisual teaching materials (Sudibyo et al., 2020). The researcher focused on the teaching materials used, namely audiovisual teaching materials.

Multimedia can be interpreted as the use of a number of different media combined as a tool to convey messages or information in the form of text, graphics, audio, animation or video. Interactive multimedia is multimedia that is equipped with a controller for user use, so it is up to the user to decide or choose the process by which the multimedia runs. so that the learning process can be more interesting, more interactive, the amount of teaching time can be reduced, the quality of student learning can be improved and the teaching and learning process can be carried out anywhere and at any time, and can improve students' reasoning abilities (Mesterjon et al., 2023)

Language ability is a person's ability to use language to express ideas about oneself, understand other people, and learn new vocabulary or other languages (Yus, 2011). Four aspects of language which include: 1. Listening, 2. Reading, 3. Speaking, 4. Writing. Researchers will focus on the first aspect, namely the Listening aspect. Listening is a process of capturing, understanding and remembering as well as possible what one hears or something another person says to one (Ariani & Slamet, 2009).

B. METHOD

This research is "Development Research" (Research and Development). This research instrument includes an interview sheet regarding teachers' needs for teaching materials, a questionnaire regarding needs for language teaching materials, validation instruments for media experts and material experts regarding teaching material media, and assessment instruments for limited trials and wide-scale trials for students.

Validation of media experts and material experts is carried out by assessing the design of teaching materials. The expert team is a product validation team, namely in the form of the media being developed and also validating the instruments that will be used to determine the

suitability of the media being developed.

The observation sheet instrument is used to see children's activities in learning before using the developed teaching materials and after using the developed teaching materials to see the effectiveness of the product in improving children's language. Data analysis of language ability improvement was measured by the percentage of the average value.

To determine the significant level of use of developed media on children's language abilities, it is measured using a t-test from the results of pretests and posttests on material presented using developed media. The calculated t value obtained was then compared with the t table according to the number of subjects who were research respondents at the significance level of 0.05 and 0.01. If t table ≤ t count then Ho is accepted and vice versa.

C. RESULT AND DISCUSSIONS

Analysis of the results of limited scale trials, testing product development for interactive multimedia-based teaching materials produces data regarding the effectiveness of the teaching materials used. In this limited scale trial, researchers involved 15 students from group B2, a pretest and posttest were carried out on the students.

The increase in children's language skills after learning using the developed teaching materials is by looking at the average increase in children's success in the table 1.

Table 1. Recap of Average Results of Children's Language Ability Scores in Group B2

Stages	Pretest	Posttest
The first meeting	5.1	8.1
Second meeting	5.6	8.5
Third Meeting	6.2	9.1
Average	16.5	25.7
Difference Pretest and Posttest	8,9	

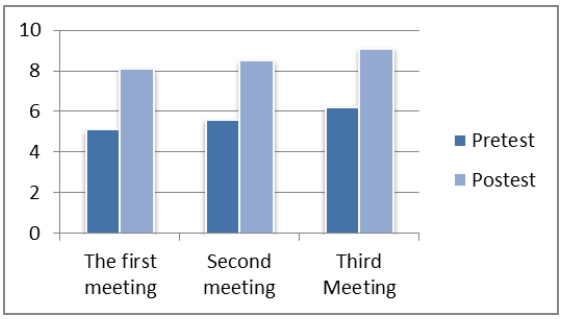

Figure 1. Recap Results of Average Language Ability Scores for Children in Group B2

The success of the students' pretest on the limited scale test, researchers can state that the

average score range is 47%, which means that students are starting to develop (MB) and after being given learning with media by the researchers, the result is a score range for the posttest of 71 %, which means students are developing according to expectations (BSH), while the difference between pre- and post-test is 25%, which means there is quite a significant increase. This is also illustrated by the results of the calculation of the t-test results, a t-calculated value of 7.4978 from the t-table is 2.145, so based on the statement at the level there is an increase in changes in students' abilities at PAUD Pertiwi 1 after a limited scale trial was carried out.

Wide-scale product trials, product tests for the development of interactive multimedia-based teaching materials produce data regarding the effectiveness of the teaching materials used. In this limited scale trial involving 30 students from Group B1 and Group B2, a pretest and posttest were carried out on the students.

The increase in children's language skills after learning using the developed teaching materials is by looking at the average increase in children's success, in table 2 below:

Table 2. Recap of Average Results of Children's Language Ability Scores in Groups B1 and B2

Stages	Pretest	Posttest
The first meeting	5.2	11.3
Second meeting	7.6	11.9
Third Meeting	8.1	12.3
Average	22.9	35.5
Difference Pretest and Posttest	12,6	

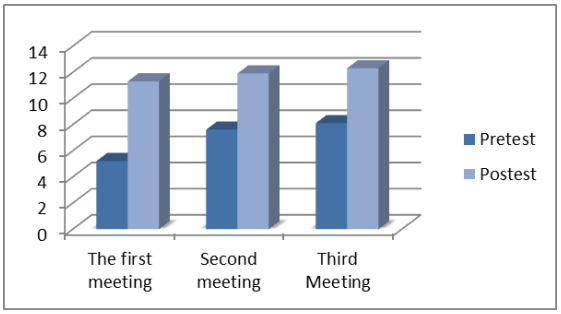

Figure 2. Recap Results of Average Language Ability Scores for Children in Groups B1 and B2

Based on table 4.2 and Graph 4.2. above, it can be explained that the language ability from the Pretest Success results is in the average value range of 64%, meaning that students are Developing According to Expectations (BSH), and the posttest average value is in the range of 99%, meaning that students are Developing Very Well (BSB) while the difference between pre and posttest is 35%, this means that there is quite a significant change in

students in groups B1 and B2 of PAUD Pertiwi 1 after being given learning materials by implementing multi-media learning and learning materials with family themes that researchers have tried to develop. The results of the t-test obtained a t-calculated value of 8.551 from the t-table of 2.048, so it is based on the statement that there is an acceptable influence on students' language abilities when seen from the smaller average of the pretest results, after being treated with media learning then there is a change in the mean value of the posttest results, it can be seen from the t-count which is greater than the t- table and this result is at an acceptable level.

So, the development of interactive multimedia-based teaching materials was designed from the problems that researchers found, such as the implementation of teachers still using paper leaflets and drawing manually on blackboards, still using media such as books, magazines, cards, letters, posters, and so on. In line with opinion (Suci et al., 2023) where problems include facilities that have not been used effectively and efficiently in schools. So after the researchers found the results of these observations, the researchers carried out development and also designed interactive multimedia-based teaching materials using Microsoft PowerPoint, Benime and other supporting applications, which were equipped with text, images, videos and animations related to learning. The use of interactive media in this research has an effect on improving children's language skills significantly.

The listening aspect can be seen from the child's side in listening to what they hear, listening to the story, capturing the content of the story, understanding the content of the story, and children can follow the content of the story in the learning video. and can answer questions in interactive media. In line with opinion (Juannita & Mahyuddin, 2022) Where listening is the process of listening to verbal symbols with full attention, understanding, appreciation and interpretation to obtain information, capture the content or message and understand the meaning of the communication conveyed.

Seeing the feasibility of conducting a limited scale test and a wide scale test of the teaching materials that the researcher has developed, with a total sample of 30, from the number of B1 and B2 samples that have been refined. which the researcher has then presented both the results of the pre-test and post-test, and the t-test on products on both a limited scale and a wide scale.

D. CONCLUSION

Development of interactive multimedia-based teaching materials which have been tested by researchers in their application, where in designing the media development researchers used Microsoft Powerpoint and Binime applications. From the results of this research, the researcher concluded that the advantages of media development include animation, video and sound which are made more interesting, flexible, can be used online via the link provided, can also be operated offline using a disk, and also cartoon animation which is interesting, easy to operate and will be easier for students to understand. Interactive multimedia can also attract students' attention and increase learning motivation in the teaching and learning process and students' learning outcomes, so that it can improve language skills in learning. This interactive multimedia is also equipped with a controller that can be operated by the user so that the user can choose what they want for the learning process, and multimedia can also be used as a presentation of material using words as well as pictures. What is meant by the word here is that the material is presented in a verbal form or verbal form.

The feasibility of interactive multimedia- based teaching materials to improve the language skills of children in group B at PAUD Pertiwi I through initial stages starting from product validation by a team of media experts and continuing with material validation by material experts. Next are the results from limited-scale and wide-scale trials. To see the improvement in language skills, it can be seen from a limited scale test where the average test result for children is 71% in the "developing according to expectations" category. And the wide-scale test results were 99% in the "Very well developed" category. This shows that the use of interactive multimedia-based teaching materials can improve children's language skills, both in terms of listening.

The effectiveness of interactive multimedia- based teaching materials that have been developed in improving language skills can be seen from a limited scale test, the percentage of feasibility is below 75%, then the researchers conducted a wide- scale test with a percentage above 75%, so the development of interactive multimedia-based teaching materials is very effective and feasible in improving children's language skills, this can be seen in the t-test results where the t-count results are greater than the t-table, so there is a significant difference.

Researchers provide suggestions that multimedia-based teaching materials can be created and created by themselves, therefore schools and teachers must continue to explore the potential of students and the potential that exists around us. Researchers hope that the development of interactive multimedia-based teaching materials can help schools and educators to create interactive teaching materials to improve students' abilities and be able to achieve the learning indicators expected by the curriculum. The researcher hopes that future researchers can further develop the product that has been developed because this product is not free from shortcomings and weaknesses, so a review needs to be carried out to minimize these shortcomings and weaknesses so that it truly becomes a viable and effective product in learning. The material presented and displayed in this development product only uses one theme, so it needs to be developed further for other themes to support the learning process.

REFERENCES

Ariani, F., & Slamet, A. (2009). Pembelajaran mendengarkan. *Jakarta: Departemen Pendidikan Nasional*.

Juannita, E., & Mahyuddin, N. (2022). Video Pembelajaran Berbasis Multimedia Interaktif dalam Meningkatkan Keterampilan Menyimak Anak Usia Dini. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, *6*(4), 3300–3313.

Kosasih, E. (2021). *Pengembangan bahan ajar*. Bumi Aksara.

Maghfiroh, S., & Suryana, D. (2021). Media pembelajaran untuk anak usia dini di pendidikan anak usia dini. *Jurnal Pendidikan Tambusai*, *5*(1), 1560–1566.

Mesterjon, M., Rulismi, D., & Sapri, J. (2023). Analysis of Blended Learning Models Using Technology 4.0 to Improve Critical Thinking Skills. *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal*, *6*(2), 183–196.

Nurdyansyah, & Mutala'liah, N. (2015). Pengembangan Bahan Ajar Modul Ilmu Pengetahuan Alambagi Siswa Kelas IV Sekolah Dasar. *Program Studi Pendidikan Guru Madrasa Ibtida'iyah Fakultas Agama Islam Universitas Muhammadiyah Sidoarjo*, *41*(20), 1–15.

Suci, A. D., Salsabila, D., Helmalia, R., Faujiah, S., & Suzanti, L. (2023). Stimulasi Aspek Kognitif Anak Usia Dini Melalui PowerPoint Interaktif di TK Labschool UPI Serang. *Tunas Siliwangi: Jurnal Program Studi Pendidikan Guru PAUD STKIP Siliwangi Bandung*, *9*(2), 92–101.

Tanu, I. K. (2017). Pentingnya pendidikan anak usia dini agar dapat tumbuh dan berkembang sebagai generasi bangsa harapan di masa depan. *Adi Widya: Jurnal Pendidikan Dasar*, *2*(2), 19–29.

Yus, A. (2011). *Model pendidikan anak usia dini*. Kencana.