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Development of Interactive Learning Multimedia to Improve the Result of Underhand Passing and Underserving Skill in Volleyball Games of IV Grade in SD Negeri 106790 Sei Mencirim

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Abstract

The objective of this research is to develop interactive learning multimedia. This research used Research and Development Method. The results in the development stage of interactive learning multimedia show: (1) the assessment of material experts was high feasible criteria with an average score of 4.68, (2) the assessment of design experts was high feasible criteria with an average score of 4.66, (3) the assessment of the media I was in the criteria of high feasible with an average score of 4.57, (4) the assessment of media experts II was in the criteria of high feasible with an average score of 4.85. Interactive learning multimedia was very effective in improving student skills in underhand passing and underhand service and can improve student learning outcomes in underhand passing and underhand service. It was proved that the average student skill result when performing underhand service after used interactive learning multimedia is 81.5 with N-Gain 0.6 medium category, the average student skill result when performing underhand service after used learning multimedia interactive was 86.75 with N-Gain 0.7 high category. The average student learning outcomes using interactive learning multimedia was 89 with an N-Gain of 0.8 "High". While the results of the lower passing t test obtain a sig value <0.05. After analyzing the data, the final test showed sig <0.05, mean Ha was accepted and Ho was rejected. Significant value of passing below 0.003 <0.05 which mean significant with a sig level of 5%, then sig value of service below 0.000 <0.05 which mean significant with a sig level of 5%. It proved that interactive learning multimedia was more effective and proven to increase student skill outcomes in carried out underhand passing and underserving as well as improved student learning outcomes in underhand passing and underserving material in IV grade of SD Negeri 106790 Sei Mencirim.

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INTRODUCTION

The development of the world of education is now starting to be seen, in an era that is very sophisticated with the presence of technology, it currently requires educators to be ready to face the millennial generation, namely the generation where they are faster than what is taught regarding the use of technology. In fact, the media used by physical education teachers when teaching volleyball material is only sober, such as pictures, volleyball, nets, fields and other teaching materials such as student and teacher handbooks. Mini volleyball as an alternative is good learning and suitable for elementary school students. Passing that is usually done by students is not in accordance with the proper growth and development of the students because the students are still small and the child's arms are not strong enough to use a real volleyball. Volleyball is one of the materials contained in the book, in the book only displays pictures and text, so students do not really understand the movement of volleyball. When the teacher took students to the field to practice the underhand passing and underhand service that had been taught previously in class, there were still many students who made the wrong moves and were not in accordance with the basic volleyball movements. For example, when doing a pass, the student's view has not focused on the ball, the student was still afraid of the ball coming towards him, his arms are still bent, the impact of the ball was still above the wrist, his hands was not swung, his left and right hands are still clenched into fists, feet are not shoulder-width apart. Meanwhile, when doing the underhand service, the mistakes made by students were that the students' feet were still parallel, usually one of the feet had to be in front, the ball was swinging too high, and the hands were not swinging back. Therefore it was necessary to have learning media that aims to assist students in improving the results of underhand passing skills and underserving mini volleyball.

In fact, it was very difficult for physical education teachers to find appropriate learning media to use when learning about underhand passing and underhand service. Based on information on the material of underhand passing and underhand service in physical education books in elementary schools, it was less varied and the game model of under passing and underhand service in mini volleyball is not in the physical education book. In elementary school physical education books, material on underhand passing and underserving in mini volleyball is still common, only explaining under passing and under handing techniques and there are no learning models of under passing and under handing so that students understand the material being taught. The learning model of underhand passing and underhand service that has been carried out by PE teachers still uses the old model contained in PE textbooks, in the book the material underhand pass and underserved is only slightly explained. Not only that, in the book there are no types of mini volleyball games to develop students' skills in doing underhand passing and underserving in mini volleyball games. So that learning becomes less effective because the learning model of passing under and serving under was monotonous by going straight to the core movement yet there are no steps that make it easier for students to receive material. This condition reflects that the current underhand passing and underhand serve learning model was less varied, innovative and creative. Students think that the movement of underhand passing and underhand service is very difficult and boring, so students tend to make the wrong

moves when performing underhand pass and underserved.

The results of the interviews can be concluded that the physical education learning media in IV grade was still in the form of equipment in the class, namely pictures, mini volleyball and other physical education media and when there are several students who finish taking notes, students will be noisy, then other students compete to finish their notes. The class is not conducive, while on the field they use nets, mini volleyball, courts and other physical education media. When they play volleyball, they are trained on that day only and do not do repetition and continuous, so the students' movements when playing volleyball are not optimal. There is a need for new innovations for students when learning to pass and serve easily, with learning media it can make children prefer and want to do underhand and underhand pass. Therefore the researchers added an alternative for teachers in developing a media in the form of interactive multimedia on volleyball material. The interactive learning multimedia developed by this researcher was expected to be able to motivate students to improve student skills in volleyball material. Therefore the researcher was interested in conducting research entitled "Development Of Interactive Learning Multimedia To Improve The Result Of Underhand Passing And Underserving Skill In Volleyball Games Of Iv Grade In SD Negeri 106790 Sei Mencirim".

METHODS

The research procedure used the Research and Development method developed by Borg and Gall (1989: 784) in 10 stages as follows: (1) Research and information, include: Observation and Interview, (2) Planning, include: Determine the purpose and benefits of interactive learning multimedia; Prepare materials, questions and reference books about mini volleyball games, material for underhand passing and underhand service; Making a grid of expert assessment instruments for instruments, materials, designs, media I, media II, and physical education teachers; Making a research instrument validation sheet; Prepare various types of underhand passing and mini volleyball underhand service, (3) Develop preliminary form of product, include: Opening View; Material Display; Display of Learning Videos; Evaluation Display; Music accompaniment; Narrator Voice; Animation according to SD Characteristics; Instruments; Validation Test; Suggestions from the Validator to improve multimedia interactive learning of under passing and under serving mini volleyball (4) Preliminary field testing, include: Small Group Trial of 11 Students, (5) Main product revision, include: Revision Stage, (6) Main field testing, include: Large Group Trial of 20 Students, (7) Operational product, include: Revision of the trial, (8) Operational field testing, include: Effectiveness Test (pretest and posttest), (9) Final product revision, include: The final product, and (10) Dissemination, include: Disseminate the product.

Sampling Procedures

This research was planned to be conducted at SD Negeri 106790 Sei Mencirim. The time for developmental research was carried out in December-February for the 2022/2023 academic year in an odd semester. The subjects of this study were fourth grade students at SDN 106790 Sei Mencirim. This class consists of 20 students in IV grade.

Materials and Apparatus

Data collection techniques used in this study were interviews, observation and

questionnaires. Interviews and observations were conducted during a survey to analyze the needs of teachers and students at SD Negeri 106790 Sei Mencirim. While the questionnaire will be carried out at the time of media validation. The questionnaire was filled in by four experts namely material expert, design expert, media expert 1 and media expert 2.

1. Stage 1 Interview
2. Stage 2 Observation
3. Stage 3 Questionnaire
4. Stage 4 Test Technique
5. Stage 5 Documentation
6. Data Collection Instruments

Procedures

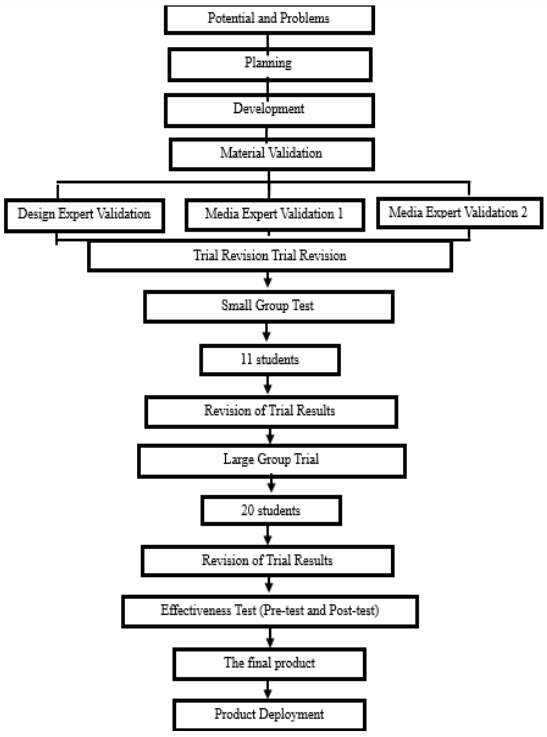

Figure 1. Interactive Learning Multimedia Development Procedure

Design or Data Analysis

1. First Stage of Research and Information Collecting

In the first stage do 2 stages, namely:

a) Interview

What was applied by the teacher was only sober, during the teaching and learning process the learning media used by the teacher are pictures, volleyball, courts, nets and other physical education media because the media used by the teacher was only sober so the results of student skills are also mediocre. During the teaching and learning process they never use interactive multimedia on the grounds that making the media was complicated and takes a long time. Currently, students' underhand passing and underserving skills are not yet in accordance with basic volleyball techniques. Physical education in elementary schools is currently very concerning because learning media in the classroom does not exist to support the quality of learning.

b) Interview

After the researcher finished observing the learning process, the researcher immediately interviewed 3 students in the high, medium and low categories and 1 physical education teacher. The media used when learning physical education in class still uses existing equipment in class, for example pictures, markers, blackboards and erasers, while the teaching materials used are textbooks. Students also said that they could not understand all of the material. Because most of the material presented they only imagined and listened to the teacher just like that, so when studying in class students felt bored and bored. From the problems above, it was necessary to have learning media that attracts students' attention, so students don't feel bored when studying in class. Then the results of the physical education teacher interview also revealed that the media used

by the teacher were pictures, volleyball, courts, nets and other physical education media and the teacher also used teaching materials in the form of teacher and student handbooks. The physical education teacher also revealed that the media used by the physical education teacher was indeed ineffective and only sober, based on the teacher's observations there were still many students who did not understand how the movement of passing under and serving was good.

2. Second Stage (Planning)

At this stage the researchers carried out a plan to develop interactive multimedia using the program, namely Macromedia Flash Professional 8. The product being developed was in the form of interactive multimedia material for passing and underhand volleyball in class IV SD Negeri 106790 Sei Mencirim. The topic presented was a learning support material which contains learning activities for passing underhand and underhand volleyball consisting of video, sound, text, animation, explanation of material, and pictures. Each material was presented in a coherent manner with visualization applications, accompanied by musical instruments, and questions to deepen the material that has been presented.

3. Third Stage (Develop Preliminary Form a Product)

The product development stage begins with the collection of materials (filming), material management (editing) and the last is the production of multimedia interactive learning of underhand passing and underhand service of volleyball. The materials collected are in the form of materials, learning videos, music, sounds, assessment instrument sheets. After the material is collected, the editor manages the material, namely by selecting the collected material and carrying out the editing process. After the assessment instrument was developed, it was validated by 2 instrument validators to see the feasibility of the instrument to be used. When the interactive learning multimedia was developed, it was tested by a validator expert. The stages for product trials are carried out as follows: (1) validation of material experts, (2) validation of design experts, (3) validation of media experts 1 and (4) validation of media experts 2.

4. Fourth Stage (Preliminary Field Testing)

Based on the results of expert validation, suggestions from the validator after completing the repairs, the interactive learning multimedia is assessed for its feasibility by the validator. After being declared feasible for testing, the multimedia interactive learning of underhand passing and underhand service can be tested in small groups of 11 people.

5. Fifth Stage (Main product revision)

After being tested on a small group of 11 people, namely 4 high achieving students, 4 moderate achieving students, 3 low achieving students. When tested, the researchers observed well when students were using interactive multimedia learning to pass under and serve under volleyball to see if there were any obstacles or obstacles when using interactive multimedia. After students use the interactive multimedia students are given a response sheet about the interactive multimedia that has been used.

6. The Sixth Stage (Main field testing)

After making improvements to the constraints obtained from small group users. Then, interactive learning multimedia for underhand passing and underhand service will be re-tested in a large group of 20 IV grade students at SDN 106790 Sei Mencirim.

7. Seventh Stage (Main Product Revision)

After being tested on a large group of 20 students. The researcher observed as best he could when the students were using interactive learning multimedia for underhand passing and volleyball underhand service to see if there were still obstacles or obstacles when using multimedia that had gone through revision after revision, so that the multimedia developed was better.

8. The Eighth Stage (Operational field testing)

The effectiveness test is a test carried out on products that have been developed using a pretest and posttest to test students' skills in performing underhand passing and underhand service as well as testing student learning outcomes before and after using interactive multimedia.

9. Ninth Stage (Final product revision)

The final product is Multimedia interactive learning of bottom passing and bottom service

10. The Seventh Stage (Dissemination)

This stage is the final stage for disseminating the product that has been developed through the mass media.

RESULT

Interactive Learning Multimedia Development Process

The development of interactive learning multimedia on volleyball passing and underhand service in IV grade SD Negeri 106790 Sei Mencirim began with a material development plan which eventually resulted in an interactive multimedia design on passing and underhand volleyball material in IV grade SD Negeri 106790 Sei Mencirim. Then in the multimedia there are lots of learning videos about models of underhand passing and underhand volleyball. Based on the results of the research, it shows that the multimedia was highly relevant to the needs of teachers and students. Because the developed multimedia has been adapted to the needs of students. After the multimedia was developed, this interactive learning multimedia was handed over to the experts to be validated.

After receiving input from all experts, improvements were made to the multimedia. After repairs were made and given to experts, the multimedia was suitable for use. It didn't stop there, interactive learning multimedia on the subject of underhand passing and underhand service of volleyball was given to the Physical Education teacher in IV grade SD Negeri 106790 Sei Mencirim to respond to this multimedia and the results were suitable for use. Then the interactive multimedia learning materials for passing down and underhand service in volleyball were tried out in small groups of 11 people to find out the advantages and disadvantages of this multimedia and the results all went smoothly and there were no obstacles or problems when students used interactive multimedia from small group trials and no need to revise. After the small group test, a large group test of 20 people was carried out and the results all went smoothly and there were no obstacles or problems when students used interactive multimedia from the large group trial and there was no need to revise it. Multimedia interactive learning material for underhand passing and volleyball underhand service was valid and can be disseminated.

Feasibility of Interactive Learning Multimedia

The feasibility of interactive learning multimedia products for underhand passing and volleyball underhand service using three experts for the validation process of interactive learning multimedia that has been

developed. Fields that were validated are material, media and learning design (presentation) which have been validated again. It was found that the results of the material expert obtained a score of 4.42 including the "High Eligible" category. Design experts get a score of 4.55 including the "High Feasible" category. Media expert 1 gets a score of 4.70 including the "High Decent" category. Then media experts 2 get a score of 4.92 including the "High Eligible" category.

After all the experts stated that interactive learning multimedia was valid and feasible to be tested. So the researcher validated the instrument so that the developed instrument could be used by the researcher to see students' skills when doing underhand passing and underhand service when playing mini volleyball games. The results of the assessment analysis of grade IV Physical Education teachers were used as the teacher's initial experience before this media was tried out in small groups and large trials. The results of the analysis of the grade IV Physical teacher's assessment obtained a score of 4.96 in the "High Eligible" category. While the results of the instrument expert's assessment were 4.80 including the "Very Eligible" category. If the media and instruments are suitable for use, the researcher immediately conducts a small group trial of 11 people, a large group trial of 20 people and the results of the trial receive very good responses.Based on the results obtained from the discussion above, the interactive multimedia learning materials for passing and underhand volleyball are suitable for use and tested in IV grade SD Negeri 106790 Sei Mencirim. The aim was to see how the results of underhand passing and underserving skills result after using interactive multimedia.

The Effectiveness of Interactive Learning Multimedia

Learning media in particular to attract students' interest in learning and eliminate student boredom in participating in class learning. So that with interactive learning multimedia, students' skills in passing and serving in volleyball games will increase. This can be proven before using interactive multimedia, the results of students' pretest skills in passing under mini volleyball game got an average score of 51.25 while the results of students' skills in underhand service got an average score of 51.50. Then a test for the similarity of the two variants is called the normality and homogeneity test. In the lower passing pretest normality test L count = 0.137 while L table = 0.190. If L count < L table then the data is normally distributed. Then in the homogeneity test it was obtained F count = 1.579. From the F distribution list with dk comparisons of 20 and dk denominators of 20, we get F table = 2.086 (⟨ = 0.05), so F count = 0.470 and F table = 2.086. Because F count < F table, it can be concluded that the variance of the data is relatively the same. While the results of the students' pre-test skills in the underhand service of the mini volleyball game got an average value of 51.5. Then a test of the similarity of the two variants was carried out which was called the normality and homogeneity test. In the pretest service normality test below L count = 0.071 while L table = 0.190. If L count < L table then the data was normally distributed. Then in the homogeneity test it was obtained F count = 0.470. From the F distribution list with dk comparisons of 20 and dk denominators of 20, we get F table = 2.086 (⟨ = 0.05), so F count = 0.470 and F table = 2.086. Because F count < F table, it can be concluded that the variance of the data was relatively the same. After the initial data (pretest) was obtained, the treatment will be carried out, the researcher uses interactive

learning multimedia, after all the learning processes are complete, a post test was carried out. Post test was conducted to determine the final condition after treatment. From the research results, it was obtained that the average posttest skill results of students in passing under the mini volleyball game got an average value of 81.5 with an N-Gain of 0.6 with moderate criteria. Then a test for the similarity of the two variants was called the normality and homogeneity test. In the posttest passing normality test below L count = 0.094 while L table = 0.190. If L count < L table then the data was normally distributed. Then in the homogeneity test, we get F count = 1.196. From the F distribution list with dk comparisons of 20 and dk denominators of 20, we get F table = 2.086 (⟨ = 0.05), so F count = 1.196 and F table = 2.086. Because F count < F table, it can be concluded that the variance of the data is relatively the same. After analyzing the research data, the final test showed sig (2-tailed) <0.05, meaning the alternative hypothesis (Ha) was accepted and the null hypothesis (Ho) was rejected. The significant value of passing under is 0.003 <0.05 which means it is significant with a significant level of 5%. Thus it can be said that there was a significant difference between the results of lower passing skills using interactive learning multimedia at a significance level of 5%. The implication was that learning using interactive multimedia can help improve student skill outcomes when doing underhand passing.

While the results of the students' post-test skills in the underservice mini volleyball game got an average score of 86.75 with an N-Gain of 0.7 with high criteria. Then a two-variant similarity test was held called the normality and homogeneity test. In the pretest service normality test below L count = 0.159 while L table = 0.190. If L count < L table then the data was normally distributed. Then in the homogeneity test it was obtained F count = 0.983. From the distribution list F with dk comparison 20 and dk denominator 20, we get F table = 2.086 (⟨ = 0.05), so F count = 1.196. Because F count < F table, it can be concluded that the variance of the data was relatively the same. The significant value of service is below 0.000 <0.05 which means it was significant with a significant level of 5%. Thus it can be said that there was a significant difference between the results of lower service skills using interactive learning multimedia at a significance level of 5%. The implication was that learning using interactive multimedia can help improve student skill outcomes when performing underhand service. Then the researcher did not only test the underhand passing and underhand skills, but the researcher also conducted a learning achievement test about the underhand pass and underserve material. This can be proven before using interactive multimedia pretest learning outcomes material for passing underhand and underhand service in mini volleyball game students get an average value of 52.00 then after implementing interactive multimedia learning results posttest material underhand passing and underhand service in student mini volleyball game got an average score of 89 and an N-Gain Score of 0.8 with High criteria.

DISCUSSION

From the research findings, there was found that the physical education orchestra is a lesson that is not enough to be delivered only by modifying the learning model, but it was very important to have a variety of media that can make it easier for students to understand the basic concepts of physical education, one of which was interactive multimedia volleyball game material. The results obtained by material experts were 91.1%, the results obtained from media

experts I was 84% and media experts II were 87%. While the results of the calculation of the effectiveness test obtained T_(count)<T_(table) then the hypothesis (Ho) was rejected, so it can be concluded that interactive multimedia volleyball games are effectively used in improving student learning outcomes. There was the development of interactive multimedia as a learning tool to get to know the basic techniques of volleyball that the developed interactive multimedia was valid and the material contained in interactive multimedia can lead children to learn indirectly and be able to learn independently. Viewed from the aspect of material expert validation with a percentage score of 84% with criteria that indicate a good category. Media validation with a percentage score of 86% in the very good category.

There was found the Development of Interactive Multimedia-Based Learning Media Material Basic Volleyball Techniques, Learning that still uses the lecture and LKS methods causes a lack of students' understanding and mastery of basic volleyball technique material, so it is necessary to develop interactive multimedia-based learning media to increase students' understanding of basic volleyball techniques. From the trial results obtained expert evaluation data, namely media experts 84% (good), learning materials experts 90% (good), small group trials 92% (very good), and large group trials 76% (good). There was found the Development of Learning Multimedia for Volleyball Material in Physical Education Subjects, data were collected through questionnaires and interviews. Assessment by material experts I of all aspects is "good" with a mean score of 3.71. Material II expert assessment of all aspects is "good" with a mean score of 3.86. Media expert I's assessment of all aspects was "good" with a mean score of 3.6. Media expert II's assessment of all aspects is "good" with a mean score of 3.9. In the small-scale trial the student's assessment was "very good" with a mean score of 4.23. In the large-scale trial the student's assessment was "good" with a mean score of 3.96. The conclusions of this research and development are the production of learning multimedia products for volleyball material in Physical Education subjects that are suitable for use in the process of teaching and learning activities. He was found making interactive learning media for basic volleyball techniques for grade 4 elementary schools at SDN Bareng 2 Malang. This media makes grade 4 students at SDN Bareng 2 Malang enthusiastic about learning. It was shown from the results of the questionnaire obtained from the students that as much as 97% of students answered that this interactive multimedia was interesting and made students enjoy learning. There was found media validity was obtained from the results of expert validation consisting of two media experts and two material experts. The results obtained from material experts I 98.33% and material experts II 90%. The results obtained by media experts I were 97.5% and media experts II were 100% with the criteria "Very Appropriate to Use". The practicality of the media was obtained through a questionnaire on the responses of students and teachers of grade II SDN Sidomulyo, SDN 1 Babadan and SDN Purworejo to interactive media based on macromedia flash 8. The conclusion that interactive media based on macromedia flash 8 was valid and practical to use on the theme of my experience in grade II elementary school.

There was found the development of contextual-based interactive multimedia of the theme of the area where I live of 4th grade students in public elementary school SDN 054919 Kacangan, Secanggang District, Langkat Regency, it can be concluded that (1)

The results of the material expert trial in terms of content assessment and presentation feasibility, it was in very good criteria (88.09%); (2) The results of the learning design expert test were in the very good category (85.42%); (3) The results of the expert test of instructional media design I have sufficient criteria (73.21%) while the results of the expert design test of learning media II are in the category of sufficient criteria (83.92%); (4) The results of individual trials were in very good criteria (81.67%); (5) The results of the small group trial were in very good criteria (90.42%); (6) The results of the large group trial were in good criteria (73.2%).

There was found the development of interactive multimedia based on a contextual approach in learning mathematics in elementary schools. The results of data analysis showed that the average score in the expert test (materials expert, media expert, linguist, and fourth grade elementary school teacher) was 97.5% and the student trial in class IV Rawamangun 12 Pagi State Elementary School (one-one trial) , small group trials, and field trials) of 95.1% in the "Very Good" category. So the results of this research and development show that interactive multimedia based on a contextual approach to the material circumference and area of flat shapes was declared valid and suitable for use in learning mathematics in grade IV of elementary school. There was found the development of problem-based interactive learning media in physical education subjects. The results showed: (1) the design of interactive learning media in the form of flowcharts and storyboards used to develop a product development in the form of interactive learning media. (2) the quality of interactive multimedia development results according to material experts, namely 91%, was in very good qualification. The results of the evaluation of design experts at 87.66% are very good qualifications. The results of the media expert's evaluation of 83.1% were in good qualification. Individual test results of 79% are in good qualification. Individual test results of 82.25% were very good qualifications. The group test results were 91.4% and the field test results were 92.9% in very good qualifications. (3) based on the results of testing the effectiveness of calculating learning outcomes manually, there was a significant difference in students' Civics learning outcomes between before and after using interactive learning multimedia. The average value after using the media (90.5) was higher than before using the media (62.40). The development of interactive multimedia using professional Adobe Flash CS3 to improve social studies learning outcomes for 4th grade elementary school students explained that the validation results of material experts were 70% (high) and media expert validation was 92% (very high). Then the average value for 2017 and 2018 has increased 74 to 81. The results of the T test obtained a significance level of α 0.017. Based on the acquisition of student learning outcomes after using interactive multimedia was higher than before using interactive multimedia.

CONCLUSION

Based on the formulation, objectives, research results, and discussion of research on the development of interactive learning multimedia that was stated earlier, it can be concluded as follows:

1. Products in the form of interactive multimedia in IV grade SD Negeri 106790 Sei Mencirim have results that are feasible to become final products that can be disseminated and implemented to users. This was clarified by several stages, namely validation to material experts to obtain a

score of 4.68 including the "High Eligible" category. Design experts get a score of 4.66 including the "High Feasible" category. Media expert 1 gets a score of 4.57 including the "High Decent" category. Then media experts 2 get a score of 4.85 including the "High Eligible" category.

2. Interactive multimedia was very suitable for improving student skills and student learning outcomes. Products in the form of interactive multimedia have practical results into final products that can be disseminated and implemented to users. This was clarified by several stages, namely small group trials and field trials. This is evidenced in the small group trial obtaining a score of 97.00 including the "High Practical" category, in the field group trial obtaining a score of 97.00 including the "High Practical" category.

3. The research subjects used IV grade and were treated using interactive multimedia. The results of the students' posttest skills in passing under the mini volleyball game got an average score of 81.5 with an N-Gain of 0.6 with moderate criteria. After analyzing the research data, the final test showed sig (2-tailed) <0.05 means alternative hypothesis (Ha) is accepted and the null hypothesis (Ho) was rejected. The significant value of passing under was 0.003 <0.05 which means it was significant with a significant level of 5%. While the results of the students' post-test skills in the underservice mini volleyball game got an average score of 86.75 with an N-Gain of 0.7 with high criteria. The significant value of service is below 0.000 <0.05 which means it was significant with a significant level of 5%. Thus it can be said that there was a significant difference between the results of lower service skills using interactive learning multimedia at a significance level of 5%. The implication was that learning using interactive multimedia can help improve student skill outcomes when performing underhand service. Not only the results of skills that are seen but student learning outcomes are also measured by researchers. Student learning outcomes in the matter of underhand passing and underhand service in mini volleyball games students get an average score of 89 and an N-Gain of 0.8 with high criteria.

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