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THE EFFECTIVENESS OF GYMBASTECH LEARNING MEDIA ON THE RESULTS OF BASIC GYMNASTICS SKILLS

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Abstract
Based on research that was carried out in the previous year regarding the development of Android application-based GYMBASTECH (Gymnastics Basic Techniques) learning media, this study aims to test the effectiveness of GYMBASTECH learning media in the learning process of gymnastics on the results of basic gymnastic skills. This study uses the True Experimental Design research method, while this study uses a posttest-only control design. The population in this study were students majoring in physical education class of 2022. The sampling technique in this study used simple random sampling. The control class consisted of 44 people using conventional learning, and the experimental class consisted of 44 people using the GYMBASTECH learning media. The data collection technique is by conducting a basic exercise skill test according to the assessment rubric in the semester learning plan (RPS). The data analysis technique in this study was the Mann-Whitney test using the SPSS 23.0 program. The results of this study indicate the value of Asymps. Sig. (2-tailed) of 0.032 is smaller than the probability value of 0.05. So thus it can be concluded that the GYMBASTECH learning media is effective for the results of basic gymnastic skills.

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INTRODUCTION

Media is one of the intermediaries used to convey messages from communicators to communicants, media is known as an intermediary used by lecturers to convey messages interactively so that students understand the material presented so that learning objectives can be achieved (Sari & Susanti, 2016). According to (Munir, 2008) suggests that the advantages of interactive learning media include: 1) can provide a deeper understanding of the learning material being discussed, because it can explain difficult concepts to be easier or simpler, 2) can explain learning material or objects that are abstract to be concrete, 3) help teach to

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present learning material easier and faster, so that students are easy to understand, long remembered and easy to re-express, 4) interesting and arousing interest, motivation, activity, and learning creativity of students, and can entertain students, 5) provoke student participation in the learning process and give a deep impression on students' minds, 6) subject matter that has been studied can be repeated (playback), and so on. Applying media in the learning process will increase learning motivation and make it easier for students to learn teaching material. Lecturers should change the conventional learning paradigm and lead students to 21st-century learning. Learning in the 21st century must be able to prepare Indonesia's young generation to welcome advances in information and communication technology in social life (Syahputra, 2018). The media used in the learning process should be feasible from a technical and cost perspective in order to support the learning process and achieve learning objectives. Other considerations that must be made by teachers or educators to choose media include the efficiency and effectiveness of the media (Mahnun, 2012). The role of the media is very necessary in a learning process. The conventional learning paradigm which is centered on the teacher is no longer relevant to the times and demands of the curriculum in the era of the industrial revolution 4.0. The new paradigm of learning in the 21st century requires students to be skilled and responsive to developments in science and technology. This is in line with opinion (Sunzuphy, 2002). That the teaching and learning process will run effectively and efficiently if it is supported by the availability of supporting media (Arisman & Noviarini, 2021). The provision of media and educational methodologies that are dynamic, conducive, and dialogical is indispensable for optimally developing the potential of students. This is because the potential of students will be more aroused when assisted by a number of media or facilities and infrastructure that support the interaction process that is being carried out. Media from an educational perspective is a very strategic instrument in determining the success of the teaching and learning process. Because its existence can directly provide its own dynamics to students. In line with the opinion above, (Rusman, 2012) put forward "media as a limited meaning, namely as a learning

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aid". This means that the media as a tool used by the teacher to motivate student learning, clarify learning information, emphasize important parts, provide variations in learning, clarify the structure of learning. However, in choosing media or learning aids must pay attention to several factors that can influence them. Lecturers are expected to be smart and precise in choosing media for material to be delivered in the lecture process because choosing the right media can increase effectiveness and efficiency in the teaching and learning process and will achieve CPL (graduate learning achievement) in both the cognitive, affective, and psychomotor domains (Mulyana, 2021). (Samsudin, 2008) states that "to carry out the physical activity process, of course, requires the completeness of media and learning aids. Because without media support and these tools, the physical education learning process will be in vain". Arsyad in (Hasanah, 2016) suggests the use of learning media at the learning orientation stage will greatly help the effectiveness of the learning process and the delivery of messages and lesson content at that time. Based on the results of previous research, related to the development of android application-based GYMBASTECH (Gymnastics Basic Technique) learning media, this study aims to test the effectiveness of this media in the learning process of gymnastics by focusing on learning outcomes of basic gymnastic skills.

Skills are a person's ability in certain matters or fields, according to the Big Indonesian Dictionary (KBBI) Version 5 skills are skills in completing tasks; capable and agile. The basic movement skills learned at school are divided into three categories, namely locomotor basic movements, non-locomotor basic movements, and manipulative basic movements (Lutan, 2002). The basic skills learned in educational gymnastics are not much different from competitive gymnastics or achievement gymnastics taught in gymnastics clubs. The similarity lies in the basic techniques learned which include the basic skills or techniques of roll, backroll, dive roll, long backward roll, headstand, cartwheel, handstand, neck spring, headspring, handspring, round-off, and back handspring. So that there is a term in the school curriculum that is called dexterity gymnastics with tools or

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without tools. Agility gymnastics without tools is like floor gymnastics, while agility gymnastics uses tools such as gymnastic activities performed on vaults, parallel bars, pommel horses, rings, and horizontal bar. Educational gymnastics given in schools or colleges has directions and goals to achieve educational goals and learning goals (Yusmawati et al., 2020).

Educational gymnastics prioritizes their own children, not their movement skills (Mahendra, 2001) Basically educational gymnastics focuses more on the development of the child himself both motorly and affectively through gymnastic activities. This is in line with the opinion (Bakhtiar, 2015) regarding the benefits of basic movement skills learned in schools, namely; 1) movement development for children's health, 2) children's motor development, 3) children's cognitive development, 4) children's social development, and 5) children's emotional development. Likewise, the benefits contained in learning gymnastics, gymnastics is only a tool, while the goal of learning gymnastics is the overall development of children through gymnastic learning activities. If based on the 2017-2020 code of points (CoP) issued by the Federation Internationale De Gymnastique (FIG), there are approximately 110 movements on floor equipment that gymnasts can display in a competition (Mulyana, 2021). However, back to learning gymnastics and the basic skills that are the focus of this study, namely the basic skills of roll, backroll, dive roll, long backward roll, headstand, cartwheel, and handstand.

METHOD

The method used in this study is the True Experimental Design research method, while the research design is the posttest-only control design. According to (Sugiyono, 2016) stated that "experimental research is the most reliable scientific research (the most valid), because it is carried out with strict control of the interfering variables outside the experiment. The instrument used in this study is in the form of an assessment rubric for the basic gymnastics skills test according to what is stated in the semester learning plan (RPS),

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Table 1. Gymnastics Basic Skills Instrument

Criteria	Indicator	Value
Practicing some basic gymnastic techniques (roll, backroll, dive roll, long back roll, headstand, cartwheel, and handstand) properly and confidently.	Correct performance; precise mechanics, executed in good form. The performer demonstrates balance, control and amplitude in movement.	76-100
	Average performance; visible errors in mechanics or form; may indicate a lack of balance, control, or amplitude in movement.	51-75
	Bad appearance; errors in mechanics and form. the performer shows little balance, control, or amplitude in movement.	26-50
	Incorrect or non-existent performance; fuel mechanics or lack of form; there is no display of balance, control, or amplitude in motion.	0-25

The data collection technique in this study was to test basic gymnastic skills (roll, backroll, dive roll, long backward roll, headstand, handstand, and cartwheel). The data analysis technique in this study is to use the Mann-Whitney test with the help of SPSS 23.0 software to test the hypothesis of differences between the two sample groups studied.

RESULT AND DISCUSSION

The application of GYMBASTECH learning media in the lecture process runs smoothly. Students are enthusiastic in applying media during learning. Student learning outcomes exceed the minimum passing mark in gymnastics learning courses. The average value of learning outcomes achieved is as follows,

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Experiment group	44	60,00	95,00	80,56	12,27
Control group	44	60,00	95,00	75,04	12,69
Valid N (listwise)	44				

Based on the learning outcomes data above, each experimental group and control group received a minimum score of 60 and a maximum score of 95. Meanwhile, the average score for the experimental group was 80.56 and the average score for the control group was 75.04. Furthermore, to find out and compare the

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results of basic gymnastic skills between the experimental group and the control group using the Mann Whitney test described in the table below,

Table 3. Ranks

GROUP		N	Mean Rank	Sum of Ranks
LEARNING OUTCOMES	Experiment group	44	50,30	2213,00
	Control group	44	38,70	1703,00
	Total	88		

Table 4. Test Statistics

	Learning outcomes
Mann-Whitney U	713,000
Wilcoxon W	1703,000
Z	-2,146
Asymp. Sig. (2-tailed)	0,032

Based on the Mann-Whitney test it is known that the Asymp. Sig. (2-tailed) of 0.032 is smaller than the probability value of 0.05. Therefore, as the basis for making a decision on the Mann-Whitney test above, it can be concluded that Ho is rejected, and Ha is accepted. Thus it can be said that there are differences in the results of the basic gymnastic skills between the experimental group and the control group. So, there is an effect of using the gymnastics learning media "gymbastech" on learning outcomes of basic gymnastics skills.

CONCLUSION

The results of this study indicate that there are differences in learning outcomes for basic gymnastics skills using GYMBASTECH learning media. In addition to the many factors that support and influence student learning outcomes, including learning media can foster motivation and develop student creativity in the

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learning process, provide learning experiences by honing critical thinking processes in analyzing motion assignments that are delivered, then discussed, solved in groups and applied in groups. each. According to the content presented in the GYMBASTECH learning media, there are competencies that must be mastered by students such as being skilled at performing basic techniques, and being skilled at assisting basic techniques. Forms of learning by applying. Media in groups, trains students' understanding in interpreting a movement task, and fosters maturity in thinking and acting in making decisions to be studied together.

The difference in learning outcomes is not only seen from the scores of student learning outcomes but also seen from the enthusiasm and motivation to learn between the control group and the experimental group. The experimental group that used the GYMBASTECH learning media had good interest and motivation to learn, and showed seriousness in achieving the motion assignments and when participating in the pretest. Whereas for the control group it was not too obvious regarding the learning motivation shown. Even though there are differences in learning outcomes between the control group and the experimental group, it is advisable for further research to be more stringent in the process of collecting data in the field in order to use more valid instruments so that the data obtained is allowed to be normally distributed and can be analyzed using parametric statistics.

The media created does not fully contain the content needed in the learning process, such as formative tests, task designs, and assessment descriptions needed in learning. Suggestions for further research are expected to make learning media equipped with assignment designs, formative tests, summative tests, and assessment rubrics so that students know the intended assessment indicators.

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