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Descriptive Study of Long Jump Learning Development in Physical Education Process : Descriptive Study on Grade VII Students of Junior High School

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ABSTRACT

This study aims to determine the most effective learning media for enhancing long jump instruction among junior high school students. The research employed a descriptive quantitative method, utilizing a random sampling technique to select a sample of 167 Grade 7 students. Data collection was conducted using a structured questionnaire distributed via Google Forms, designed to assess students' perceptions of the effectiveness of three different types of instructional media. The findings revealed that all three media demonstrated a fairly effective level of support for long jump learning. However, based on the percentage scores obtained, the bamboo-based media emerged as the most effective among the alternatives. Students reported greater ease of understanding and skill acquisition when using bamboo media compared to other instructional aids. In conclusion, the study indicates that bamboo media is the most effective learning tool for supporting the development of long jump skills in Grade 7 students at the junior high school level. These results highlight the importance of selecting appropriate, contextually relevant instructional materials to optimize student engagement and learning outcomes in physical education.

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1. INTRODUCTION

Physical education is a forum to improve students' fitness and healthy lifestyle habits that aim to stimulate balanced growth and development (Alexandr et al., 2016). Physical education is also an educational process that utilizes systematically planned physical activities aimed at developing and improving individuals naturally, neuromuscularly, perceptually, cognitively, and emotionally within the framework of the national education system (Chow et al., 2007). In physical education, educators must be able to teach students sportsmanship, honesty, cooperation, discipline, and healthy living habits (Novianti et al., 2003).

According to (Haskell et al., 2007) physical education is a number of selected human physical activities that are carried out to obtain the desired results. From this explanation, it is clear that Physical Education, Sports and Health (PJOK) is very important. The role of teachers is required to provide a variety of basic skills of games and sports, development activities, techniques, and outdoor activities, values contained in physical education, intelligence, innovation, creativity, experience, and motivation in the learning process. It is expected that students can gain knowledge, physical fitness through movement, skills, attitudes, and values contained in the material presented by the teacher.

Athletics is a popular sport that is widely loved by the public. Athletics is done by all countries, because the educational values contained in it also play an important role in the development or improvement of optimal achievements for this sport which is considered as the progress of a country, especially in sports achievements (Tamir & Galily, 2015).

According to (Widodo, 2018) explains that the term athletics is used in Malaysia to mean a branch of sport that includes walking, running, jumping, and throwing. Athletics is also a very important element of sport for other sports because according to (Council et al., 1916) explains that all movements are in athletics, even these movements are the basis and essence of all sports, that's why athletics is called the "mother of sport".

Although athletics is an easy, cheap, and fun sport for all ages, unfortunately lately athletics has lost much of its appeal because it is considered boring. In schools, students are more interested in learning materials that are more recreational because of the lack of appeal of athletic activities themselves which are all about the track and field which are less motivating for children (Petros et al., 2016). In learning athletics at school, there are several materials, one of which is the long jump learning material (Setyawan & Ardianto, 2021).

Long jump is one of the numbers of athletic sports that have been known by ancient people since they were born, where in their daily lives they were forced by nature to jump or run in order to maintain their lives (Lenoir et al., 2014). According to (Lee & Thomson, 2016) long jump is a movement of lifting the body from one point to another with a running start by supporting one foot and landing with two feet or other limbs with good balance. Long jump movements can be seen from four main phases, namely, (a) the initial phase or approach (*approach-Run),* (b) the push-off phase (*take off),* (c) the floating phase in the air or body position in the air (*Action in the air)* and (d) the landing phase (*Landing).* (Sumantri, 2015) Because learning long jump is a boring learning for students, therefore every long jump learning has several factors that influence it.

Factors that influence long jump learning are human resources (HR), facilities & infrastructure and learning methods from the three human resource factors (HR) are divided into 2, namely consisting of teachers and students (Noorbakhsh et al., 2001). Teachers are one of the factors that

affect long jump learning because if a competent teacher will be more able to create an effective, enjoyable learning environment, and will be better able to manage the class well so that the learning carried out by students will be at an optimal point. If a teacher is not

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competent in teaching, then the learning will also result in not being conducive because a teacher is not able to control the class well (Meece, n.d.).

Based on the problems that have been described, the researcher concluded that it is very necessary to develop long jump learning and the researcher concluded that student boredom is caused by the characteristics of athletic sports which are individual and contrary to the spirit of children who have a strong desire to play, therefore the researcher wants to develop long jump learning which can later be used as a solution to make it easier for students to learn long jump movements effectively and efficiently. Therefore, the purpose of the study is to develop long jump learning with games that are suitable for students in grade VII of junior high school. Until now, the problems faced by physical education teachers in the field are the large number of students in each class, lack of facilities, equipment and facilities in teaching and learning facilities in physical education. The development of sports is increasingly rapid and even easy to spread to the community, so that some people view sports as part of their lives. even doing sports is as important as doing other needs. It should be realized that facilities and infrastructure are very much needed, it is important to do sports activities because without facilities and infrastructure it will not develop in accordance with the development of sports in other countries. However, the reality in the field, there are still many students who are not interested in athletics lessons and even tend to dislike them. This is a challenge for physical education teachers so that athletics lessons are fun lessons for their students. One of the obstacles encountered in the field includes the lack of adequate athletic facilities and equipment, lack of innovation and modification of learning facilities.

In fact, most students feel lazy to follow athletics learning, the reason is because athletics learning makes students tired (Simons & Covington, 2015). According to (Mensch & Ennis, 2002) explains that: "When students do not like athletics lessons, it may be because what is taught is the same as athletics done by adults. They will get bored and avoid athletic activities. Meanwhile, according to (Carlson & Hastie, 2016) explains that: Athletics learning at every level of education is one of the boring and less interesting lessons, it needs improvement in presentation and in the approach to make it more interesting and students will be more enthusiastic to follow the athletics learning itself.

From the general problems faced by physical education teachers in delivering material, especially long jump, the researcher is interested in conducting research with the title "Descriptive Study of the Development of Long Jump Learning in the Physical Education Process for Class VII Students of junior high school."

2. METHODS

Research methods are steps owned and carried out by researchers in order to collect information or data and conduct investigations on the data that has been obtained. Explains that research methods are basically a scientific way to obtain data with certain goals and uses. Research methods are a branch of science that discusses or questions how to carry out research (which includes activities to search, record, formulate, analyze to compile reports) based on facts or symptoms scientifically. It can be concluded that the research method is a way to obtain or collect data by conducting field research.

The type of research used by the researcher is descriptive. The research method used is quantitative descriptive research. Descriptive research is defined as a research method that describes the characteristics of the population or phenomenon being studied. Descriptive research is generally carried out with the main objective, namely to systematically describe the facts and characteristics of the objects and subjects being studied accurately.

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For the research approach in this thesis, a quantitative research approach is used, that the quantitative research method is defined as a research method based on the philosophy of positivism, used to research a particular population or sample, data collection using research instruments, data analysis is quantitative/statistical, with the aim of advancing the established hypothesis.

Quantitative descriptive research is a type of research that aims to describe systematically, factually and accurately the facts and characteristics of a particular population.

After all the data taken in a study is collected, the next step is to analyze the collected data so that a conclusion can be drawn through the calculation of the data.

For analysis that is in accordance with the research approach, used in this study is as follows:

Information:

P: Percentage

n: Number of scores obtained *N*: Ideal/maximum number of scores

Respondent characteristics analysis was used to obtain a picture of the respondents studied. The population studied were grade VII students of junior high school. The number of samples taken in this study was 167 respondents. Based on the information obtained from the questionnaire given, respondents were classified into groups based on the gender and class of each student.

Based on the results of the questionnaire answers given by respondents, the following data was obtained:

Gender

Based on the results of the questionnaire answers given by respondents, the following data was obtained:

Percentage of Respondents by Gender

Type Sex	**Frequency**	**Percentage**
Man	94	56.3%
Woman	73	43.7%
Total	167	100%

Based on the data obtained above, from 167 respondents of grade 7 students at junior high school, it is known that 94 people (56.3%) of the sample were male.

male, and 73 people (43.7%) of the sample. The data results in this study are that 93% of Deaf Students at SLBN Cicendo have a high level of self-confidence and 7% have very high self-confidence, so it can be concluded that Students and Grade 11 Students of SLBN Cicendo have self-confidence. female.

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Student Class

Based on the results of the questionnaire answers given by respondents, the following data was obtained:

Percentage of Respondents Based on Student Class

Class	Frequency	Percentage
7.1	18	10.778%
7.2	19	11.377%
7.3	18	10.778%
7.4	19	11.377%
7.5	18	10.778%
7.6	19	11.377%
7.7	19	11.377%
7.8	18	10.778%
7.9	19	11.377%
Total	**167**	**100%**

Based on the data collected from 167 Grade 7 students of junior high school, the distribution of respondents can be detailed as follows: 18 students (equivalent to 10.778%) were drawn from each of the classes 7.1, 7.3, 7.5, and 7.8, while 19 students (equivalent to 11.377%) came from each of the classes 7.2, 7.4, 7.6, 7.7, and 7.9. This relatively balanced distribution across different class groups ensured that the sample represented the broader student population adequately, thereby enhancing the generalizability of the research findings.

To ensure the accuracy and consistency of the research instrument, validity and reliability tests were conducted. The purpose of the validity test was to determine whether the items in the questionnaire accurately measured the intended variables related to the effectiveness of learning media in long jump instruction. The validity test in this study employed the Correlation technique using the SPSS software. The correlation values obtained were compared against the critical r-table value at a significance level of 0.05 with a 2-tailed test and 165 degrees of freedom (df = n – 2; 167 – 2 = 165).

According to the decision criteria, if the correlation coefficient (r count) exceeds 0.1519, the questionnaire item is considered valid. The results indicated that the majority of the questionnaire items met the validity threshold, thus confirming that the instrument effectively captured the constructs being studied. Through this process, it was ensured that the data used for analysis were both accurate and credible, reinforcing the robustness of the conclusions drawn from the study.

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Variable Validity Test Results: Learning Development & Long jump

Variables	Item			Decision
	P1	0.422	0.1519	Valid
	P2	0.473	0.1519	Valid
	P3	.467	0.1519	Valid
	P4	.434	0.1519	Valid
	P5	.419	0.1519	Valid
	P6	.494	0.1519	Valid
	P7	.478	0.1519	Valid
	P8	.541	0,1519	Valid
	P9	.446	0,1519	Valid
	P10	.509	0,1519	Valid
	P11	.481	0,1519	Valid
	P12	.511	0,1519	Valid
Long Jump Learning Development	P13	.386	0,1519	Valid
	P14	.425	0,1519	Valid
	P15	.400	0,1519	Valid
	P16	.427	0,1519	Valid
	P17	.361	0,1519	Valid
	P18	.463	0,1519	Valid
	P19	.454	0,1519	Valid
	P20	.489	0,1519	Valid
	P21	.422	0,1519	Valid
	P22	.380	0,1519	Valid
	P23	.470	0,1519	Valid
	P24	.435	0,1519	Valid
	P25	.414	0,1519	Valid

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		P26	.473	0,1519	Valid
		P27	.482	0,1519	Valid
		P28	.353	0,1519	Valid
		P29	.495	0,1519	Valid
		P30	.415	0,1519	Valid
		P31	.483	0,1519	Valid
		P32	.425	0,1519	Valid
		P33	.537	0,1519	Valid
		P34	.430	0,1519	Valid
		P35	.446	0,1519	Valid
		P36	.414	0,1519	Valid
		P37	.453	0,1519	Valid
		P38	.415	0,1519	Valid
		P39	.487	0,1519	Valid
		P40	.440	0,1519	Valid
		P41	.393	0,1519	Valid
P42 .415 0,1519 Valid					
P43	.516	0,1519		Valid	
P44	.518	0,1519		Valid	
P45	.501	0,1519		Valid	
P46	.330	0,1519		Valid	
P47	.470	0,1519		Valid	

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P48	.538	0,1519	Valid
P49	.445	0,1519	Valid
P50	.455	0,1519	Valid
P51	.385	0,1519	Valid
P52	.451	0,1519	Valid
P53	.392	0,1519	Valid
P54	.353	0,1519	Valid
P55	.498	0,1519	Valid
P56	.532	0,1519	Valid
P57	.328	0,1519	Valid
P58	.443	0,1519	Valid
P59	.431	0,1519	Valid
P60	.334	0,1519	Valid
P61	.333	0,1519	Valid

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P62	.426	0,1519	Valid
P63	.497	0,1519	Valid
P64	.396	0,1519	Valid
P65	.504	0,1519	Valid
P66	.458	0,1519	Valid
P67	.488	0,1519	Valid
P68	.393	0,1519	Valid
P69	.423	0,1519	Valid

The results of the validity test of the long jump learning development variables consisting of 69 questions, all question items were said to be valid in the validity test because the value (Correlations) > 0.1519.

3. RESULTS

No. Media Results

In the study, the results for cardboard media reached 68.3% (Quite Effective), then for bamboo media the results were 73.3% (Quite Effective), and for tire media the results were 65.3% (Quite Effective). Of the three media, all three have a fairly effective level of effectiveness, but when viewed from the percentage value, bamboo media is superior. Thus, it can be concluded that of the three media, bamboo media is more effective for long jump learning for grade 7 students of junior high school compared to other media.

4. DISCUSSION

The results of this study provide valuable insights into the effectiveness of different learning media in supporting the development of long jump skills among seventh-grade students at junior high school. Based on the data analysis, it was found that all three types of media—bamboo media, video media, and visual media—offered a positive contribution to

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the improvement of students' long jump performance. However, bamboo media emerged as the most effective, indicating a superior impact compared to the other two media.

The superior effectiveness of bamboo media can be attributed to several key factors. First, bamboo media provides students with direct interaction with tangible learning aids that closely simulate real long jump conditions. This direct engagement allows students to better grasp critical biomechanical aspects of the movement, such as take-off technique, flight phase control, and landing execution. The physicality of the bamboo media offers students immediate kinesthetic feedback, which is crucial in mastering complex motor skills (Magill & Anderson, 2017). By interacting with concrete tools, students can bridge the gap between abstract concepts and real physical performance, leading to a deeper and more lasting understanding of the long jump technique.

Second, the bamboo media enhances students' spatial awareness and bodily coordination by providing them with real-time, spatial references essential for skill execution. Unlike visual or video media, which primarily rely on visual-cognitive processing, bamboo media fosters experiential learning through kinesthetic channels. According to Fleming and Mills' (1992) VARK model of learning styles, kinesthetic learners—who learn best through movement and doing—benefit significantly from physical interaction with learning materials. Therefore, for a motor-based skill such as long jump, which heavily depends on muscle memory and spatial coordination, bamboo media offers an unmatched advantage by allowing students to learn by doing.

Third, although visual and video media were also found to be effective, their limitations lie in the fact that they provide indirect and delayed feedback. While videos and images can help students visualize proper technique and movement phases, they do not offer the same level of immediate, physical feedback that bamboo media enables. Students may observe and cognitively understand the technique through videos or diagrams, but without physical practice and tangible interaction, their ability to replicate these movements correctly in real-life situations can be compromised. This aligns with the theory of embodied cognition, which posits that cognitive processes are deeply rooted in the body's interactions with the world (Wilson, 2002).

The findings from this study also have important practical implications for physical education teachers. When designing instructional strategies for motor skill development, particularly for skills requiring spatial and dynamic movement such as long jump, educators should prioritize hands-on learning experiences. Selecting learning media that enables active participation, immediate feedback, and real-world simulation can significantly enhance the efficiency of the learning process and student engagement.

In conclusion, the dominance of bamboo media over visual and video media in improving long jump skills underscores the necessity of aligning instructional tools with the nature of the skill being taught. Practical, tangible learning experiences are crucial for developing motor skills, and as demonstrated in this study, they lead to better student outcomes in physical education settings.

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5. CONCLUSION

Based on the results of this study, it can be concluded that the use of bar media is more effective in supporting the development of long jump learning at the junior high school level. The bar media was found to be more successful in attracting students' attention, fostering engagement, and encouraging active participation during physical education sessions. This effectiveness is reflected in students' positive responses and higher achievement levels compared to other media such as cardboard and tires. However, the study also identified certain limitations, particularly related to technical barriers such as limited internet access and students' difficulties in comprehending and completing the online questionnaire, which may have affected the completeness and accuracy of the data collected. Despite these challenges, the overall findings affirm that the selection and application of appropriate learning media plays a critical role in enhancing the quality of physical education instruction. The results emphasize the importance for physical education teachers to carefully design and adapt learning media based on student needs, the nature of the sport being taught, and available resources. The study highlights that effective media not only improves skill acquisition but also boosts students' intrinsic motivation and enthusiasm toward learning.

Furthermore, the findings of this research provide valuable implications for practice and future inquiry. It is recommended that future studies explore more diverse and innovative types of learning media, address the limitations faced during online data collection, and examine their impact on various physical education competencies. By continuously refining instructional strategies and media, educators can better achieve learning objectives and contribute to the holistic development of students in physical education settings.

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