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Development of a Basic Manipulative Movement Learning Model (Object control) Play Activity Based for Students Grade V Elementary School

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ABSTRACT

The purpose of the study is to produce a learning model with valid, practical, and effective criteria. This type of research is development research using the Borg And Gall model. The population is all grade V students of State Elementary School 18 West Freshwater, Padang Utara District, Padang City. The sample was 30 class V students. The sampling technique is total sampling. The model validation design is validated by 2 experts: motor and language and model practicality by 2 sports teachers, The data collection instrument consists of tests of validity, practicality and effectiveness. As well as data analysis techniques using descriptive qualitative and quantitative techniques. The validation results of the learning model were obtained on average by 81.2.% with valid categories. In practicality, the results were obtained that this learning model was practical or good for use with learning implementation results of 91.7% The results of the effectiveness test using the Manipulative Basic Motion learning model based on play activities showed that there was a difference between obtaining manipulative motion ability results before using the model and after using the learning model. It was concluded that the model is effective and can improve the results of manipulative motion abilities (control objects) in the learning of sports and health physical education in grade V of primary school.

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INTRODUCTION

In the era of the industrial revolution 4.0, the world of education experienced very significant developments in all fields of education (Oktarina et al., 2021). Education is an aspect that must receive important attention in facing the 4.0 era which demands that humans can develop from various aspects, be it economic, social, cultural and technological aspects (Jumarsa et al., 2020). National development is in an educational order that aims to educate the life of the nation and improve human quality (Fradila et al., 2021). As stated in law number 20 of 2003 concerning the national education system Chapter II article 3, it is explained that the functions of national education are. National education functions to develop capabilities and shape dignified national character and civilization in the context of educating the nation's life, aiming at developing the potential of students to become human beings who believe and fear God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent , and become citizens, a democratic and responsible state. From these quotations it can be argued that education is the process of changing a person's attitude and behavior in shaping the character and personality and civilization of a dignified nation, in educating the life of

the nation so that they become human beings who believe and fear God Almighty through teaching or training (Ichsan et al., 2022).

Education is a conscious and planned effort to create an atmosphere in the teaching and learning process so that students can develop and explore all the potential that exists within them (Razak et al., 2021). Learning is a change from not knowing to knowing, those who cannot become able, those who are unable to become capable and this is done consciously. In the learning process the teacher is a facilitator and motivator to explore all the potential possessed by children (Munawaroh, 2017). Pendidikan yang bermutu dalam praktek proses pembelajaran harus dapat memenuhi seluruh kebutuhan peserta didik atau dengan kata lain proses pembelajaran berpusat pada peserta didik (Ardiyanto & Sukoco, 2014).

Aunurrahman, (2018) Learning is a process or effort made by each individual to get changes in behavior, both as a whole, as a result of the individual's own experiences in interaction with their environment. The most important learning experience is the learning experience at the elementary school level, because elementary school is a very basic level. If you compare it to a building, an elementary school is a foundation that must be strong, if the foundation is not solid or good then the building will easily collapse (Suharyat et al., 2022). Likewise with basic education which is a fundamental aspect that must be considered by educators so that their students are successful in the future. The Ministry of Education and Culture, or abbreviated as the Ministry of Education and Culture, has established various fields of study in elementary school education, one of which is Physical Education, Sports and Health (PJOK). Quality education is education that is able to develop positive potentials hidden within students (Hidayat & Sujarwo, 2022).

Sport and Health Physical Education (PJOK) is an integral part of holistic education that aims to improve physical fitness, motor skills, critical thinking skills, social skills, reasoning skills, emotional stability, ethical behavior, aspects and presentation of a healthy lifestyle, in order to provide knowledge and skills to primary school students and to ensure overall development. the vast majority of children and adolescents worldwide fail to meet physical activity recommendations (Hulteen et al., 2018). The process of developing the pedagogical mastery of future physical education teachers at higher levels of educational institutions is determined by the results obtained, that is, the features formed by the level of development (Maksymchuk et al., 2018). Structure of the physical education curriculum In Grade V the curriculum implemented at West Air 18 Public Elementary School still uses the K13 curriculum and refers to Permendikbud No.37 of 2018 concerning Core Competencies and Basic Competencies (Suhaimi et al., 2022). The subjects of Physical Education, Sports and Health in the 2013 Curriculum in primary and secondary education have several scopes of learning materials. The scope of physical education learning materials includes basic movements, games and or sports, physical fitness, and health.

Basic movement skills or fundamental motor skills are aspects that must be considered by educators in determining the success of the learning process of sports and health physical education in increasing the creativity or movement skills of a learner, whether the learning objectives have been achieved. the definition of perceiving movement includes it as an essential condition of human experience sometimes described as embodied experience(Cairney et al., 2019). Bakhtiar, (2015) that basic movement is the basis for developing various movement skills in sports and physical activity for life. If children's basic motor competence is not developed, they will not be successful in using various sports and game skills in childhood and adolescence. In

this learning paradigm the teacher/trainer illustrates in more detail the Partial, Varied, Random type of exercises and Mental Training in an intensive form (Raiola, 2017).

There are two classifications of manipulative skills, namely receptive and propulsive. Receptive skills are receiving an object such as catching and propulsive skills are characterized by the exertion of force or force against an object, such as hitting, throwing, bouncing or kicking (Rahman et al., 2021). Manipulative skills are the coordination of several movement skills in the human limbs. Children's manipulative movements start from motor and locomotor skills. The development of manipulative skills gives children confidence and ease in living everyday life (Ardanari et al., 2020).

Public Elementary School 18 Air Tawar Barat, located in North Padang District, Padang City, is a public elementary school that has a fairly heterogeneous socio-economic condition of the community (parents of students) from the lower middle class, including workers, fishermen, traders and a small number of is a Civil Servant (PNS). Even though in terms of the limitations that are owned by the parents of students, the school continues to strive to improve the quality of the education service itself in creating competitive human beings as future generations.

Manipulative basic movement skills are movement skills to control objects or objects, movement activities are hitting, throwing, catching, rolling and kicking (Martinus & Kesumawati, 2020). Learning various basic movement skills, especially in object control (manipulative) material is a form of basic movement patterns to support movements that are more proficient in sports and skills. Basically basic movement abilities include locomotor, non-locomotor, and manipulative (Yudanto, 2020). The development of children's motor skills can be improved through the provision of physical exercises or movement experiences with a game approach that demands physical activity (Salman & Darsi, 2020). Motoric development, both using large muscles and fine muscles, are interrelated in forming children's basic movement skills (Mirawati & Rahmawati, 2017).

Based on direct observation with PJOK teacher Mrs. Yona Tri Wahyuni regarding the learning process of basic manipulative movements at SD Negeri 18 found several problem indicators, some of the problem indicators are as follows: 1. It is suspected that the learning model used still uses a learning model that is only teacher-centered and lectures where students only imitate the movements taught by the teacher, 2. It is suspected that the teaching techniques used by educators are relatively monotonous, 3. basic manipulative (object control) through play activities, 5. Lack of variety of learning models used in physical education subjects in elementary schools to improve manipulative movement abilities (object control), 6. Lack of availability of tools and infrastructure to support homework learning process of basic manipulative movement abilities (control object), 7. Educators pay less attention to the evaluation and assessment of manipulative movement skills (object control), 8. There is no visible manipulative movement learning in the form (control object) which is not carried out during the learning process such as passing a ball , throwing the ball to one point, throwing and catching with the right technique, kicking the ball with the right technique, of course this will have an effect on students' manipulative movement abilities (object control). So, it can be concluded that the level of manipulative movement ability (object control) of students is still low.Sesuai dengan indikator pada materi yang mencakup gerak dasar, khususnya pada gerak *manipulatif* (objek kontrol) kelas V, disebutkan bahwa siswa dapat mempraktikan kombinasi gerak dasar *lokomotor*, *non lokomotor* dan *manipulatif* sesuai dengan konsep tubuh, ruang, usaha, dan keterhubungan dalam berbagai permainan bola besar/bola kecil sederhana dan atau tradisional

dengan model pembelajaran melalui aktivitas bermain. Namun, kenyataan yang terjadi dilapangan dalam proses pembelajaran permainan bola besar/bola kecil, khususnya dalam permainan yang harus menguasai objek kontrol (*manipulatif*) tidak seperti yang diharapkan dan belum sesuai pada tahap pertumbuhan atau perkembangan peserta didik, dimana pada usia 9 sampai 12 tahun rentang kelas IV sampai dengan kelas VI pada domain psikomotornya koordinasi otot dan keterampilan meningkat dan berminat dalam tekhnik yang detail (Gusril, 2017). gerak manipulatif mempunyai peran yang sangat penting dalam pembelajaran pendidikan jasmani, terutama pada cabang olahraga yang menuntut melakukan sesuatu bentuk gerakan dari anggota badannya secara lebih terampil, seperti: sepakbola, bola voli, bola basket, bola kasti dan sebagainya (Hendra & Putra, 2019). Berdasarkan hal tersebut penelitian ini bertujuan untuk produce a learning model with valid, practical, and effective criteria. This type of research is development research using the Borg And Gall model. The population is all grade V students of State Elementary School 18 West Freshwater, Padang Utara District, Padang City.

RESEARCH METHOD

This research method used in this research is Research and Development (Research and Development). The development research model used in this research is the development model used in this research is the Borg and Gall model which consists of 10 stages namely, 1. Potential and problems 2. Data collection 3. Product design 4. Design validation 5. Design revision 6 .Product trial 7. Product Revision 8. Usage Trial 9. Product Revision 10. Mass Production. Place and Time of Research This research will be conducted at SDN 18 Air Tawar Barat, Padang Utara District, Padang City, Grade V students. To develop and implement it all. This decision was also based on consideration of the limited funds, manpower and time available to complete this research. Research Time The time used by researchers for this research was from the date of issuance of the research permit in October-December to the stage of data collection, data processing, presentation in the form of a thesis and guidance process.

Characteristics of the Research Target This research was conducted at SDN 18 Airvar Barat using a target of fifth grade students aged between 9-12 years, so that it fits the target age of the program provided which in the 9-12 year age period there is a transition in activity -the activities given in physical education and sports lesson (Santosa & YuliantI, 2020). The product specifications developed in this study are in the form of a learning model manual, this is intended to be easily accessible and studied at any time by the teacher, so that the teacher does not depend on the availability of a video player. This guidebook contains basic manipulative movement skills (object control) which are packaged into a play activity learning model.

Model Development Steps This research procedure contains steps that must be carried out at each stage of its development which was modified by (Sugiyono, 2017). The product produced in this study is a learning module that can be utilized by educators and students in improving manipulative movement skills (object control). The Borg and Gall Research and Development (R&D) development model consists of ten steps as follows: 1. Potential and problems 2. data collection 3. Product design 4. Design validation 5. Design improvement 6. Product trial 7. Product revision 8. Usage trial 9. Product revision 10. Mass production.

The researcher limits the development research steps from ten steps to seven steps until the product revision is in accordance with development needs. The final product of this development research is a play activity-based manipulative movement (object control) learning model manual. The data analysis technique used in this development research is to use quantitative and qualitative techniques in the form of percentage descriptive analysis. In data processing percentages are obtained by certain formulas. Data analysis in this study was grouped into validity analysis.

RESEULT AND DISCUSSION

RESULT

Results of Needs Analysis

Needs analysis was carried out to find out the problems faced by the teacher in carrying out the learning process related to manipulative motion learning materials. Based on the results of the needs analysis in this study, it is based on a continuously improved curriculum to improve the quality and quality of learning in the classroom. The product of this stage is a Play Activity Learning Model for Grade V Elementary School Students designed by researchers. This model is a learning model that was developed based on field studies and literature review as well as relevant research results. The results of this development consist of a motion learning model of play activities for fifth grade elementary school students which are included in a learning model manual.

Figure 1. The initial draft of the Play Activity Learning Model Guide

Stage II revision was carried out after obtaining validation, input, and suggestions from experts/experts. Input and suggestions as well as data received are used as a basis for revising at this stage. The validation results from 2 experts stated that this product was valid. Based on the discussion results and suggestions from the validator, a revision of the learning model was carried out, the suggestions given by the validator are as follows:

a General description of learning is more clarified

b Use standard language and according to KBBI

c Adjust the model with the assessment

d Evaluation norms must be clear

e The game steps must be clear

f At the end of learning students should be given reward and punishment.

Revision in stage III was carried out after obtaining input and suggestions from teachers who observed the implementation of product trials in the field. The researchers used this as a basis for revising to perfect the Play Activity learning model for manipulative movement abilities for fifth grade elementary school students. As for a number of inputs given by the teacher namely.

1. Condition the students during the warm-up, starting from the general warm-up to a more specific warm-up.
2. make sure students are fully dressed in sportswear

The final model or final product revision stage after receiving suggestions and input from a number of experts and teachers in field trials. The final product produced is a guidebook for the Play Activity model to improve basic manipulative movement abilities (object control) for fifth grade elementary school students. Attached product.

Figure 2. Guide to the Play Activity learning model (Final Product)

Model Feasibility

Testing the feasibility of the model is carried out through a number of stages, namely validating the learning model, practicality of the model through observing its implementation in the field, and at the end the model is tested with an effectiveness test. The recapitulation graph of the average percentage of validation test results and the practicality of the learning model can be described as follows.

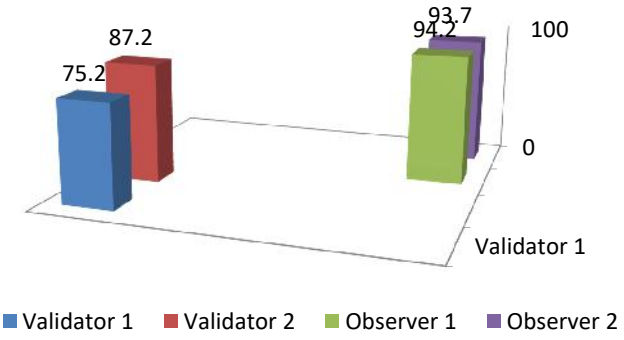

Figure 3. Feasibility Test Results of Play Activity Learning Models for Grade V SD Students

Expert Validation Results

The designed learning model was then validated by the validator. The validation was carried out by two validators from universities. In this activity, experts are asked to assess the learning models that have been made and provide assessments and suggestions for improvements and teaching materials that have been designed. The revised learning model is returned to the validator. Validation is complete when the validator has stated that the designed teaching material is valid and ready to be tested. The following table displays data from expert validation results on the design of the development of Play Activity learning models for fifth grade elementary school students.

Table.1 Validation of Play Activity Learning Models

No	Ahli	Hasil Skor	Persentase (%)
1	Validator 1	94	75.2
2	Validator 2	109	87.2
Jumlah		**203**	**Valid**
Rata-rata		**81,2**	

Based on the description in the table, it shows that the results of the expert/expert assessment of the Play Activity learning model are 81.2% which are in the valid category. Thus, it can be said that the Play Activity learning model for fifth grade elementary school students is valid and can be used in learning.

Discussion

Validity is needed to test a study. The word "valid" is often interpreted correctly, correctly, valid, valid, so the word validity can be interpreted as accuracy, truth, validity or legitimacy. This is what is said with content validation (content validiy). Furthermore, the product components must be consistent with each other (construct validity). Based on the analysis of the validation assessment data from the validator, the validity of the developed game-based play activity learning model is classified as valid. This can be seen from the validation results which have been declared valid by the validators with an average validity level of 81.2% which belongs to the valid category. Learning systems that use teaching materials have a positive impact on student learning outcomes (Gumara & Wahyuri, 2022). The learning process will be effective if the teacher is able to carry out the learning process to teach students with predetermined learning objectives (Rais & Syafruddin, 2020).

Furthermore, in the learning process the use of teaching materials will help students achieve more optimal learning outcomes (Pitnawati et al., 2019). In addition, the accuracy of the learning model used by the teacher can help students' learning motivation (Anita & Astuti, 2021). In addition, students will easily understand the subject matter delivered by the teacher (Ariantesa et al., 2022). Student learning activities have a big role in encouraging students to study more actively. For elementary school students, teachers must have competence or more productive teaching skills, so that students are more satisfied with the subject matter (Suharyat et al., 2022).

This manipulative learning model will help elementary students to be more motivated in learning. Not only that, this learning model is able to encourage student learning outcomes to be better (Haryanto et al., 2022). This manipulative learning model is able to encourage movement abilities in sports education material (Mulyana, 2021). Sports education material is mandatory material that must be mastered by elementary school students.

CONCLUSION

Based on the development and testing of the learning model that has been carried out, the following conclusions are obtained. The play activity learning model for fifth grade elementary school students which is in accordance with the curriculum, concepts, and student characteristics is valid and can be used in PJOK learning in elementary school fifth grade.

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