



Resty's Manipulative Learning Model in Assigning Children's Movement Activities from Home

Resty Gustiawati^{1*}, Intan Purnamasari², Citra Resita¹, Febi Kurniawan¹, Rekha Ratri Julianti¹

¹Faculty of Teacher Training and Education, Physical Education Health and Recreation, Singaperbangsa Karawang University, Indonesia

²Faculty of Computer Science, Singaperbangsa Karawang University, Indonesia

Corresponding author's email: resty.gustiawati@fkip.unsika.ac.id

ABSTRACT

Resty's Manipulative Learning Model is the development of a game-based manipulative basic motion model with learning variations that have a gradual and fun level of difficulty for children and use simple tools/media that are easy to do from home through online instructions on Whatsapp Class groups. The purpose of this study was to determine the effectiveness of Resty's Manipulative learning model in improving the manipulative movement skills of elementary school children. This study uses a quantitative approach with the True Experimental Design method with the type of Pretest-Posttest Control Group Design. The effectiveness test was conducted in 2 districts, namely Karangreja 01 Elementary School, Bekasi Regency and Sindangjati Elementary School, Sumedang Regency, totaling 50 samples as the experimental group. Then in 2 districts, namely Wanci Mekar I Elementary School, Karawang Regency and Setiawinaya Elementary School, Subang Regency, totalling 55 samples as the control group. The test instrument used in this study was a test of manipulative basic movement processes. This variation of Resty's Manipulative model was chosen to be adapted to movement learning that can be done from home. The learning facilities and tools used are also very simple so that they can be obtained in the home environment. The results of the study stated that the Resty Manipulative basic movement learning model was declared very feasible to be applied in physical education learning in elementary schools in order to achieve the learning objectives that have been set according to the 2013 curriculum. Then the Resty Manipulative basic movement learning model based on the results of the effectiveness test, empirically can be declared effective and significant. Thus, Resty's manipulative learning model in learning physical education from home is declared to be effectively used to improve manipulative basic movements in elementary school children.

Keywords: *Customize Learning Model; Resty Manipulative; Elementary School Children; Learning from Home*

1. INTRODUCTION

Physical education in sports and health taught in schools has a very important role, namely providing opportunities for students to be directly involved in various learning experiences through selected physical activities, sports, and health that are carried out systematically [1]. Modern physical education which emphasizes education through physical activity is based on the assumption that body and soul are an inseparable unit, this view views life as a totality [2]. Wall & Murray, suggests that through physical education, sports and health, students are socialized into physical activities, including sports skills. Therefore, it is not surprising that

many believe and say that Physical Education is part of a comprehensive education, and at the same time has a strategic potential to educate. The provision of learning experiences is a medium to encourage physical growth, psychological development, motor skills, knowledge and reasoning, appreciation of values (attitude, mental, emotional, sportsmanship, spiritual, social), as well as habituation of healthy lifestyles that lead to stimulating growth and quality development. balanced physical and psychological [3].

As an organizing environment that can lead students to learn how to learn, in learning an effective learning model, with a contextual approach the teacher's task is to

help students achieve their goals, namely the teacher deals more with strategies than providing information. The teacher's job is to manage the class as a team that works together to find something new for students. Something new comes from discovering yourself not from what the teacher says. That is the role of the teacher in a classroom that is managed with a contextual approach [4]. Implementation of Sports Education in the National Curriculum of Australia and New Zealand in the early 1990s, largely made teachers interested that the learning model provides many basic educations according to the objectives of physical education (Wellhead and O'Sullivan). Sports Education is based on a desire to provide students with a more meaningful curriculum as an alternative to "decontextualize", i.e. a one-size-fits-all approach. While the traditional approach is "physical education as a sport", which is used by most physical education teachers in their learning practices [1]. Then a teacher-centered approach is also often used in learning, such as the Direct Instruction (DI) model in which the teacher acts as the sole learning leader who makes decisions about developing learning content, managing classes and determining student learning activity patterns [5]. The main priority in this approach is the psychomotor domain because the basic assumption about student learning outcomes is that the level of proficiency in performing the basic skills needed in more complex game situations can be achieved [6].

Physical Education learning practices in schools tend to emphasize the skills and appearance of learning outcomes rather than how students master the skills and appearance of motion during the learning process. Meanwhile, debates related to learning outcomes must be useful in the affective, fitness and social domains [7]. However, the cognitive aspects (knowledge) and motor skills of students have more influence on improving student learning outcomes, [8]. Therefore, it is important to develop a basic movement variation model to make it easier for children to learn basic movements so that children can get the essence of the physical education learning process which emphasizes the development of aspects of children's knowledge, skills and attitudes, especially in manipulative basic movements. Basic movement skills in elementary schools can be divided into three categories, namely: locomotor, non-locomotor, and manipulation. According to BSNP that one of the objectives of implementing physical education, sports and health in elementary schools is to improve the ability and basic movement skills [9]. Basically the basic human movements are walking, running, jumping and throwing [10]. Mastery of fundamental movement skills (FMS) has been recognized as having contributed to the physical, cognitive and social development of children's thinking to provide the basis for an active lifestyle [11].

Basic motor skills (fundamental motor skills) are general motor activities with specific/certain patterns that are observed. These skills are most used in sports and

movement activities are advanced versions of fundamental motor skills. These basic motor skills are often carried out by children when playing, these movements are throwing, catching, kicking, kicking, two-handed and one-handed attacks, bouncing balls, running, jumping, dodging, and vertical jumping [12]. The development of movement patterns is not specifically related to the development of high-level skills in a number of movement situations, but rather with developing an acceptable level of proficiency and efficient body mechanics in a wide variety of movement situations [13]. Each movement pattern is first considered in relative isolation from all others and then linked to others in various combinations. Manipulative motion is a movement that is developed when the child has been able to master various objects. Manipulative ability uses more hands and feet, but other body parts can also be used in mastering objects. The forms of manipulative motion include pushing movements (throwing, hitting, kicking), receiving movements (catching) and bouncing the ball or dribbling the ball [14]. Play is an important means for children's social emotional, and cognitive development as well as reflecting their development, providing opportunities for children to understand the environment, interact with others in social ways, express and control emotions, and develop children's capabilities [15]. Adults differ from children in that they learn movement stages that have a specific or material purpose and continue to pursue moving targets that have been illustrated in vasomotor [16]. Improved behavior, movement skills obtained due to increased knowledge about activities that are felt [17]. Improvements in learning have been carried out based on the process of how students learn and improvement in the learning process cannot be separated from the specific learning approach used to produce a better learning process. The learning approach in Physical Education places more emphasis on teacher-centered learning, because it is more concerned with mastering skills in content, compared to a student-centered learning approach that emphasizes the process of increasing knowledge and social interaction [6]. Concept: Fundamental motion is categorized as manipulative motion which includes giving force to an object and / or receiving power from the object [13]. Motor skills for children are very important, because by moving children can explore freely, it can be defined that motor skills are the capacity of a person's appearance in performing various motion tasks [18].

The game is a vehicle for direct learning strongly heralded by this theory. The quality of the game is decisive because it takes place on the children's own initiative and is mainly based on their own needs and interests [19]. Bennett et al., suggest that games as social activities include intrinsic motivation, attention, exploration, non-literal behavior, flexibility and active involvement. The context of the game is usually familiar and stress-free, it also involves free choice [20]. Lavin,

adds that the game can continue to be implemented in a warm-up followed by a core learning session in certain skills. So that Physical Education teachers can continue to use games in learning as a whole in their teaching model [21].

When the Corona Virus Disease 2019 outbreak or what is commonly called COVID-19 by the public spreads to Indonesia, starting on March 9, 2020 all human activities are limited in order to suppress the spread of the corona virus, including learning activities in formal and non-formal institutions, both in elementary school, junior high school, high school, to college level began to change the learning and lecture system by implementing a learning system from home or online learning. In accordance with the circulars of the minister of education and culture number 2 of 2020 and number 3 of 2020 regarding online learning and working from home in order to prevent the spread of COVID-19, (Minister of Education and Culture, 2020). So that teachers and lecturers must be able to design teaching materials that are delivered online to students.

Student characteristics are aspects or individual qualities of students. These aspects can be in the form of talents, interests, attitudes, learning motivation, learning styles, thinking skills, and initial abilities that they already have. This shows that all children have different initial characteristics that they already have, therefore teachers need to know well the character of the students they are facing to provide a learning experience process through appropriate learning methods in order to obtain these individual qualities [22]. Delis, reveals that the development of elementary school-age children is the right age to learn movement, learning motion is a form of learning that has an emphasis on something specific, namely the goal of improving the quality of movement [23]. Characteristics of children aged 9 to 11 years in elementary school girls, regarding rapid height growth and weight growth continues continuously and the development of physical strength is weaker when compared to boys. Meanwhile, growth in height is slow and weight gain is slow but persistent and his physical abilities gradually continue to increase [24]. In order to continue to improve in their movement and physical abilities, students must continue to do physical activities under any conditions. So that in terms of implementing an online learning system from home, it is necessary to assign motion by the teacher.

Physical Education problems that occur, cannot be separated from the management of learning by the teacher to achieve the learning objectives of physical education as a whole. Physical education teachers are less able to create varied learning for students, so that in the learning process students can gain reinforcement from the material provided by the teacher. Problems in the field in the practice of learning Physical Education are often teachers using a teacher-centered approach with the

use of conventional methods that are tied to competencies in the applicable curriculum. So that learning feels stiff and boring for students. Teachers pay less attention that the models, approaches, strategies, methods, and styles they provide in learning are still lacking for comprehensive development in increasing creativity, innovation, participation, and fun for students in the physical education learning process at school. Conventional manipulative basic movement learning in elementary schools only learns manipulative basic movements, directly on the skills to be achieved in the learning objectives. Then the teacher provides the experience of basic manipulative movements to students without modifying the learning of basic manipulative movements of rolling, throwing, catching, kicking, hitting, bouncing into a gradual variation of the basic manipulative motion model so that the learning process is easier for students to do.

Based on the results of observations in 2 elementary schools in Karawang Regency and interviews with 4 physical education teachers, learning physical education for sports and health in elementary schools during the Covid-19 pandemic is not easy to do with an online system. The obstacles faced by children are very diverse, from not having a smartphone, parents' working time, credit quota and others. Then elementary school children in lower grades are often faced with fear when learning manipulative basic movements in sports and health physical education subjects at school. Because most of them are not good at catching, hitting, kicking, bouncing, and rolling the ball with good coordination. So that when learning manipulative basic movements, they choose to do it carelessly or avoid the ball, this is the problem that children lack mastery of manipulative basic movement skills so that the experience of learning motion in the learning process to increase physical activity and skills in manipulative basic movements is not optimal.

Therefore, Physical Education teachers in online learning activities need to continue to provide movement learning experiences from home and must be more creative and innovative in applying learning models that are in accordance with the material, student character and existing conditions, so that students' learning interest remains high in participating in learning. suit from home. The achievement of physical education goals will be achieved if students enjoy physical education learning as a physical activity that can improve fitness, improve movement skills, train cognitive aspects, apply good sportsmanship attitudes in pleasant situations according to their abilities both at school and from home. From the problems that occurred, researchers were interested in using the Resty Manipulative Learning Model for elementary school children, providing a gradual manipulative basic movement experience from the easiest to the most difficult according to the child's ability, creating a positive attitude towards learning so as to help children to develop self-confidence,

independence and responsibility. Take responsibility for their own decisions and have fun learning activities with a touch of play in manipulative basic movement learning. So that the development of children's movement skills is more optimally developed and makes the development of more skilled movements in more complex motor skills even though using an online learning system from home.

2. METHOD

The research approach used in this study is a quantitative approach, namely a method based on the philosophy of positivism, used to examine certain populations or samples, data collection using research instruments, data analysis is quantitative/statistical, with the aim of testing the formulated hypotheses. The research method used is the experimental method. The experimental method is a research method used to find the effect of certain treatments (treatments) under controlled conditions (laboratory). The final result of this

research and development will result in the design of a new game-based learning model from the manipulative basic motion model. The instrument used in this study, for the initial and final tests, used a manipulative basic motion instrument developed from the Test of Gross Motor Development - Second Edition (TGMD-2), by Ulrich. This instrument has passed the face validity test by several experts who can support the validity of this research instrument. This manipulative basic movement instrument has been tested for reliability using Cronbach's Alpha with the calculation of the SPSS 20 application. Rolling Test 0.627, Throwing Test 0.699, Kicking Test 0.751, Hitting Test 0.617, Catching Test 0.656, Bounce Test 0.622 with criteria that Cronbach's Alpha value is greater than the value 0.60. Thus, the manipulative basic motion instrument is declared Reliable. Table 1 is the development of a game-based manipulative basic motion model for elementary school age.

Table 1 Variations of the "Resty Manipulative" Learning Model as Movement Learning from Home

No		Variation of Learning Model "Manipulative Resty"	
1	Rolling away	17	Kicking the Tortoise Ball
2	Rolling knees	18	Kicking Fort Bite
3	Rolling humpback	19	Kicking Damps
4	Rolling walk	20	Kicking Jumping
5	Rolling run	21	Hanging Ball Catch
6	Rolling back	22	Bounce Catch
7	Rolling Trench	23	Parabolic Catch
8	Free Throw Ball	24	Catching Back Ball
9	Throwing Static Balls	25	Hitting Hanging Static Ball
10	Throwing Down Balls	26	Hitting Static Balls Down
11	Throwing a Flat ball	27	Hitting Dynamic Balls
12	Throwing Back Balls	28	Hitting a Walking Shuttlecock
13	Throwing a Basket	29	Hitting Lungs
14	Kicking Free Ball	30	Earth Bouncing Balls
15	Kicking the Ball in	31	Bouncing Ball Under
16	Kicking Out Ball	32	Running Bouncing Ball

Furthermore, the operational field test was 4 elementary schools with 100 subjects from 4 different districts. In the operational field test, the researchers also applied an experimental test, namely 2 schools became control classes and 2 schools became experimental schools. Experimental test to determine the validation of the feasibility and effectiveness of the "Manipulative Resty" learning model in improving manipulative basic movement skills. The methods and instruments used to test the feasibility and effectiveness of the model using quantitative experimental methods carried out with Pretest-posttest Control Group Design are as follows:

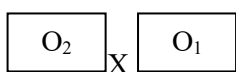


Figure 1 Experimental Design Beginning - End

Description: O₁ = Initial value
O₂ = Final value

To prove the significance of the difference between the old and new model systems, the statistical formula for the t-test was correlated with the following formula:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2} - 2r \left(\frac{S_1}{\sqrt{n_1}}\right)\left(\frac{S_2}{\sqrt{n_2}}\right)}}$$

3. RESULT AND DISCUSSION

3.1. Needs Analysis

Before developing a game-based manipulative basic motion model for elementary school age, the researcher first conducted a Model Needs Analysis. From the results of the needs analysis, the key to the need for development to be carried out, the data obtained include, among others, that (1) 100% of elementary school children learn basic

manipulative movements in learning physical education, sports and health. (2) 80% stated that lower grade elementary school children had difficulty in learning manipulative basic movements. (3) 90% of PJOK teachers need a game-based method in the manipulative basic movement learning process. (4) 30% of teachers stated that they had their own way of providing manipulative basic movement learning experiences. (5) 50% of teachers take advantage of the state of the school environment to be used as a means of learning manipulative basic movements. (6) 40% of teachers modify learning tools to facilitate the movement learning process. (7) 20% of teachers stated that the movement learning process they did increased aspects of children's knowledge. (8) 20% of teachers stated that they had used the verbal command method in the learning process of manipulative basic movements. (9) 90% of teachers use the demonstration method in learning manipulative basic movements. (10) 100% of teachers stated that they needed game-based manipulative basic movement development models to improve children's basic manipulative knowledge and skills.

3.2. Model Feasibility (Theoretical and Empirical)

Expert judgment (Expert Judgment) is carried out to get input and suggestions for the initial product, so that the draft model developed can be analyzed conceptually and operationally by experts in order to obtain a good

model development and in accordance with the concept of motion and characteristics of elementary school students. Validation was carried out by 3 material experts, namely (1) Prof. Dr. Firmansyah Dlis, M.Pd. as a motor expert (2) Prof. Dr. Moch Asmawi, M.Pd. as a Physical Education expert (3) Dr. Dewi Susilawati, M.Pd. as an Elementary School Physical Education expert. As well as 2 practitioners of physical education, sports and health, namely (1) Drs. Ade Abikusna, M.Pd. as an outstanding teacher in Karawang Regency and (2) Isak Tasane, S.Pd. as a senior teacher in elementary school. As a guide in conducting validation, the researcher provides a value scale format for experts and practitioners whose results are used as the basis for improving the initial product draft which will become the final model, totaling 54 variations of the model to be further tested on small-scale trials, large-scale tests and effectiveness tests. Effectiveness Test Experiment Class Data Analysis The results of the normality test using the SPSS application are seen from the results of the probability test on the Asymp value. Sig. (2tailed) the value is 0.060 where > 0.05 which means that the initial test data of the experimental group is normally distributed, the results of the probability test are on the value of the Asymp final test data. Sig. (2 tailed) the value is 0.167 where > 0.05 which means that the final test data of the experimental group is normally distributed. The next step is the t-test to determine the effectiveness of the Resty Manipulative motion model. The calculation results are presented in the table 2.

Table 2 Test of the Effectiveness of the “Resty Manipulative” Movement Learning Model Effectiveness Differences

	Mean	N	Std. Dev	Std. Error
Post_Test_Experiment	75.14	50	3.233	.457
Pre_Test_Experiment	65.72	50	2.963	.419

Based on the data analysis, the average pre-test value was 65.72 and the post-test average was 75.14, the standard deviation of the pre-test was 2.97 and the post-

test was 3.23, the average pre-test and post-test was 9.42 and the standard deviation was 2.89, the t-count value was 23.02.

Table 3 Experimental Class t- Test

t – value	t – Table 0,975	Conclusion
23.02	2.01	Effective and Significant

Then in the t-test table above df = 49 so that the t-table value is 2.01, the significance level is 0.05. Because the value of t-count 23.02 > t-table 2.01 then H0 is rejected. Based on this information, it can be said that the "Manipulative Resty" Movement Model to improve manipulative basic movement skills is declared effective and significant to be applied to elementary school children.

3.3. Control Class Data Analysis

The results of the normality test obtained the probability of the Asymp value. Sig. (2-tailed) on the initial test 0.305 where > 0.05 which means that the control group's initial test data is normally distributed, the probability test on the Asymp final test. Sig. (2 tailed) 0.115 where > 0.05 which means that the final test data of the control group is declared to be normally distributed. Furthermore, the t-test is to determine the effectiveness of the Conventional Manipulative motion model. The calculation results are presented in the table 4.

Table 4 Test of Differences in the Effectiveness of Conventional Manipulative Motion Model

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	65.04	55	2.694	.363
	Posttest	67.96	55	3.030	.409

Based on the data analysis, the average pre-test score was 65.04 and the post-test average was 67.96, the standard deviation of the pre-test was 2.694 and the post-

test was 3,030, the average pre-test and post-test was 2.927 and the standard deviation was 2.448.

Table 5 Control Class t- Test

t – value	t – Table 0,975	Conclusion
-8.867	2.00	Increasing and Significant

Based on the table 5, df = 54 so that the t-table value is 2.00, the significance level is 0.05. Because the value of t-count $-8.867 < t\text{-table } 2.00$, i.e. the value is outside the acceptance area, H0 is rejected. Based on this information, it can be said that the Conventional Manipulative Basic Movement Model to improve manipulative basic movement skills is stated to have a difference/influence in improving manipulative basic motion.

3.4. Hypothesis Testing

Test the average difference between the experimental group and the control group from the results of basic manipulative movement skills by conducting the Independent Sample T Test using the SPSS 20 application calculation. Table 6 shows the results of the Independent Sample T Test calculation.

Table 6 Gain Test of Experimental Group and Control Group

	class_exp_dan_contr	N	Mean	Std. Deviation	Std. Error Mean
Gain_exper_and_control	Gain-Experiment	50	9.42	2.893	.409
	Gain-control	55	3.00	2.325	.314

Based on the results of the statistical calculations above, the average result of the difference in the experimental group was 9.42 out of 50 children. Then the average value of the difference in the control group was 3.00 of 55 children. In descriptive statistics, there is a

difference in the average value of the experimental group and the control group. In the results of the mean difference obtained a value of 6.420, which shows the difference between the average values of the experimental group and the control group.

Table 7 Independent t- Test

		F	Sig.	t	df	Sig.(2-tailed)	Mean Differ	Std. Error Diff	95% Confidence Interval of the Difference		
										Lower	Upper
Gain_Exp _Cont	Equal variances assumed	2.924	.090	12.6	103	.000	6.420	.510	5.408	7.432	
	Equal var not assumed			12.4	94.025	.000	6.420	.515	5.396	7.444	

Based on the results of the Independent Samples Test (Table 7), it is known that the t-count value of the experimental group with n = 50 of $12.583 >$ from t table 1.980 and t-count of the control group with n = 55 of $12.454 >$ 1.980 so that it can be interpreted that Ho is rejected and Ha is accepted, then there is a difference between the difference in the average value of the results of basic manipulative movement skills in the experimental group and the control group. From the results of the calculation of the value of Sig. (2-tailed) on the Equal variances assumed line, a value of $0.000 < 0.05$ means that Ho is rejected and Ha is accepted, it can be

concluded that there is a significant (significant) difference between the average difference in the value of the results of movement skills. manipulative basis in the experimental group with the control group.

Thus, based on the difference in the average value of the results of basic manipulative movement skills in the experimental group and the control group due to the treatment of the game-based manipulative learning model (Resty Manipulative Model) in the experimental group, it can be seen from the following diagram:

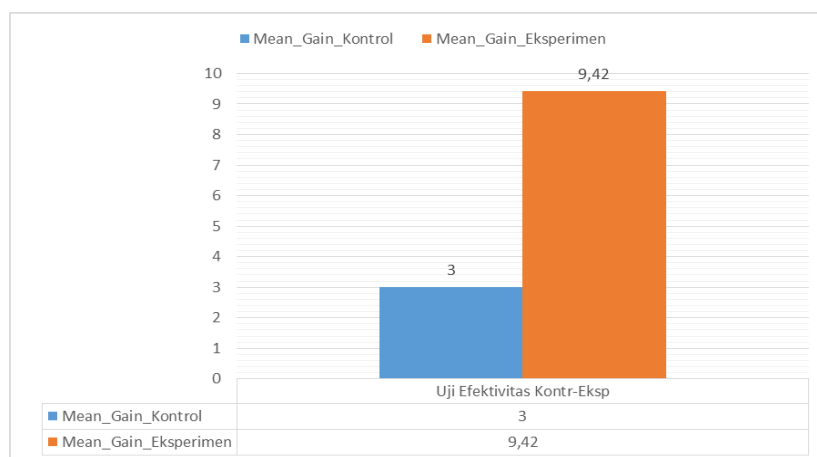


Figure 1 Bar chart comparison of the mean value of the difference between the experimental and control groups

Different from the results of research by Yulingga Nanda Hanief and Sugito who developed basic movements in elementary school students through traditional games. This development includes all types of basic movements, namely: The basic movements of walking, running and jumping are basic locomotor movements that need to be developed in elementary schools in addition to other basic movements. Traditional games are one type of game that can provide benefits for the development of children's growth. Giving traditional games to elementary school children can provide intellectual, social, and good character development for children. it's just that this model is difficult to apply in a pandemic situation that requires learning to be carried out online or from home [25].

4. CONCLUSION

Based on the results of this study, the Resty Manipulative basic movement model for elementary school age can be concluded based on the research problem formulation, namely, produce a Resty Manipulative basic movement model for elementary school children that has been systematically arranged according to the ability level, child characteristics, and condition of facilities. physical education infrastructure, sports and primary school health based on the results of the analysis of existing needs in the field. So that the Resty Manipulative basic motion model can be declared very feasible to be applied in learning physical education, sports and health in elementary schools in order to achieve the learning objectives that have been set more easily. Then the basic movement model "Manipulative Resty" for elementary school children based on the results of the effectiveness test, can be empirically stated to be effective and significant in improving manipulative basic movement skills very well in elementary school children.

REFERENCES

- [1] D. Siedentop and H. der Mars, "Introduction to physical education, fitness, and sport," 2004.
- [2] J. Wall and N. Muray, *Children & Movement, Physical Education in The Elementary School*. 1994.
- [3] Cerika Rismayanthi, "Optimalisasi pembentukan karakter dan kedisiplinan siswa sekolah dasar melalui pendidikan jasmani olahraga dan kesehatan," vol. 8, no. April, 2011.
- [4] Z. Aqib, "Model-model, media, dan strategi pembelajaran kontekstual (inovatif)," *Bandung: yrama widya*, 2013.
- [5] C. Allen, "Personalized System of Instruction and Student Performance in High School Weight Training Courses," 2015.
- [6] J. Pereira, R. Araújo, C. Farias, C. Bessa, and I. Mesquita, "Sport education and direct instruction units: Comparison of student knowledge development in athletics," *Journal of Sports Science and Medicine*, vol. 15, no. 4, pp. 569–577, 2016.
- [7] J. O. Jeff Walkley, Bernie V Holland, Rose Treloar, *Fundamental Motor Skills: A Manual for Classroom Teachers*. Melbourne Vic Australia: Victoria. Department of Education, 1996.
- [8] C. Farias, C. Valerio, and I. Mesquita, "Sport Education as a Curriculum Approach to Student Learning of Invasion Games: Effects on Game Performance and Game Involvement," *Journal of Sports Science and Medicine*, vol. 01, no. September 2017, pp. 193–201, 2018.
- [9] BSNP, "Badan Standar Nasional Pendidikan." Jakarta, 2006.
- [10] A. S. Muhadi, "Atletik." Jakarta: Depdibud, 1992.
- [11] D. R. Lubans, "Fundamental Movement Skills in

- Children This material is the copyright of the original publisher. Unauthorised copying and distribution,” *Sports Medicine*, vol. 40, no. 12, pp. 1019–35, 2010.
- [12] K. Haywood, M. A. Robertson, and N. Getchell, *Advanced analysis of motor development*. 2012.
- [13] D. L. Gallahue and J. C. Ozmun, *Motor development in early childhood education. Handbook of Research on the Education of Young Children*. 2006.
- [14] I. Saputra, “Modifikasi media pembelajaran pendidikan jasmani sekolah dasar,” *Jurnal ilmu keolahragaan*, vol. 14, no. 2, pp. 35–41, 2015.
- [15] A. Hidayat, “Peningkatan Aktivitas Gerak Lokomotor, Nonlokomotor Dan Manipulatif Menggunakan Model Permainan Pada Siswa Sekolah Dasar,” *Jurnal Pendidikan Jasmani Dan Olahraga*, 2017, doi: 10.17509/jpjo. v2i2.8175.
- [16] R. A. Schmidt, T. D. Lee, C. Winstein, G. Wulf, and H. N. Zelaznik, *Motor control and learning: A behavioral emphasis*. Human kinetics, 2018.
- [17] A. Vinter and P. Perruchet, “Implicit motor learning through observational training in adults and children,” *Memory and Cognition*, vol. 30, no. 2, pp. 256–261, 2002, doi: 10.3758/BF03195286.
- [18] D. Widiastuti, *Tes dan Pengukuran Olahraga*, PT. Bumi T. Jakarta, 2011.
- [19] N. Bennett, L. Wood, and S. Rogers, *Teaching Trough Play*, Gramedia W. Jakarta, 2005.
- [20] J. Lavin, *Creative Approaches to Physical Education: Helping children to achieve their true Potential*. 2008.
- [21] J. Lavin, *Creative Approaches to Physical Education: Helping children to achieve their true Potential*. Routledge, 2008.
- [22] F. Dlis, *Sosiologi Olahraga*, Wineka Med. Malang, 2015.
- [23] F. Dlis, “Sosiologi Olahraga,” *Malang: Wineka Media*, 2015.
- [24] J. Tangkudung and W. Puspitorini, *Kepelatihan olahraga, pembinaan prestasi olahraga*, Cerdas Jay. Jakarta, 2006.
- [25] Y. N. Hanief, “Membentuk Gerak Dasar Pada Siswa Sekolah Dasar Melalui Permainan Tradisional,” no. March, 2018.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter’s Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter’s Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

