

Media Development Video Tutorial Model Big Ball Game to Improve Basic Manipulative Movement Skills

Indah Verawati¹, Rahma Dewi²

^{1,2}Faculty of Sports Science, Universitas Negeri Medan, Indonesia

Indahverawati@unimed.ac.id, rahmadewi@unimed.ac.id

Abstract

This study aims to develop a video tutorial application for the big ball game model to improve manipulative basic movement skills and be developed as a sports and learning teacher guide with the development of basic movement skills. The products produced are CDs and video tutorial manuals for big ball game models. This research was developed by adapting the research and development education model of Gall, Gall, & Borg. The development procedure used includes several stages: 1) analyzing the content of the product being developed, 2) developing the initial product of the game, 3) expert validation, 4) field testing, 5) product revision and qualitative. The results of a small group trial of 20 elementary school students at SD S Gajahmada and SDS Islam Al Ulum Terpadu obtained a percentage of 91.31% (very suitable for use) and the results of a large group trial were 40 elementary school students, SDN No:1017774, SDN No : 101775, SDN No: 101776 Medan City obtained a percentage of 93.19% with the category (Very Suitable for Use). The conclusions in this study are improving students' basic manipulative movement skills can develop optimally with teacher creativity in developing quality learning in accordance with predetermined competency standards for elementary school students. With big ball games that are carried out, basic manipulative movement skills will increase and carry out activities happily.

Keywords

game model; big ball; manipulative



I. Introduction

The development of basic movement skills during the elementary school years is the basis for developing skills to participate in sports and recreational activities. Successfully developing skills can have a positive impact on health throughout life by increasing participation in physical activity and therefore reducing obesity. Basic movement skills are a specific set of skills that involve different body parts such as feet, legs, head, arms and hands. These skills are the basis for the more complex and specialized skills that children will need throughout their lives to participate competently in a variety of games, sports and recreational activities. This is in line with the opinion of Kadek et al (2015: 195) that children need to be equipped with various basic movement skills that are good according to their abilities and age, this has a positive impact on their physical and psychological growth and development. Manipulative basic movement skills are part of the fundamental basic movements, in addition to locomotor and non-locomotor basic movements (Jhony & Ghazali, 2019: 439). Further stated by Hidayat (2017; 23) this motion is developed after the child has mastered various

kinds of objects. Furthermore, Pramono (2010: 9) and Sujiono (2007:124) manipulative motion is a movement activity carried out with the help of tools, playing objects or tools with balls, rackets and bats. The ability to throw, catch and kick is one of the most important manipulative abilities during development. Because these skills can support the needs of movement at the age of children (Andri, et al, 2019:29). So these skills must be developed through PJOK learning. With the teacher's understanding of the importance of these skills for children, PJOK learning in elementary schools should be able to accommodate them. Suyantini (2013:30) that to be able to carry out manipulative activities, it requires coordination with space or objects around the child.

These skills are generally divided into three categories: 1) Locomotor skills - such as walking, running, jumping, skipping, jumping, dodging and deviating. 2) Non locomotor skills - such as balancing and landing. 3) Manipulative skills - such as catching, throwing, kicking, arm curling and striking. Basic movement skills are elements of movement that are taught in elementary schools, which are summarized in the subjects of Physical Education, Sports and Health (Penjasorkes). The scope of Physical and Physical Education subjects includes aspects of games and sports including: traditional sports, games, motion exploration, non-locomotor and manipulative locomotor skills, athletics, baseball, rounders, kippers, soccer, basketball, volleyball, table tennis, tennis, badminton, and martial arts, as well as. Physical education lessons in elementary schools are an ideal opportunity to improve basic movement skills. Because elementary school-age children are children who are always active in adapting to their environment. According to Harsuki (2003: 49) physical education should be centered on students. The teacher should present games that are appropriate to the child's ability level, by modifying the game according to the child's abilities.

Physical education is taught in a school environment, through physical education learning the needs of elementary school children can be met, elementary school age children are a growing and developing community that really needs guidance and guidance. This is in accordance with Ria's opinion (2013: 7) with diverse motion experiences in children, children will have good movement patterns and awareness, so they are able to perform efficient movements in a variety of varied situations. This means that teachers of physical education, sports, and health have an important role in training the development of children's basic movements. Physical education as part of sports has not been able to fulfill its role until now (Arsani, 2020). Physical activity is an inseparable part of the life of living things, ranging from simple to very complex activities (Sulaiman, 2020). The learning process of a subject, especially physical education both theoretically and practically, requires a learning model that will facilitate teachers to transfer their experience and knowledge to their students (Suryono, 2020).

In learning Physical Education, there are still many obstacles, obstacles and problems in the development of basic movement skills, this is the subject of discussion by teachers who teach Physical Education. An important finding is that today's children are less active than ever before. The main reason for this lack of activity is that children lack basic movement skills. This is in stark contrast to the benefits of good basic movement skills development, where mastery of basic movement skills contributes not only to the physical development of children, but also to their cognitive and social development, as well as providing the basis for an active lifestyle.

After being identified through interviews with teachers, the main cause is the lack of teacher creativity in designing learning media and the use of learning media is still not optimal. Learning media are tools used to support the implementation of the teaching and learning process, from books to the use of electronic devices in the classroom.

The media used should be to help stimulate the thoughts, feelings, abilities and attention of students in the teaching and learning process in the classroom. The media can be in the form of tools or teaching materials. Arif Yudianto (2017:234) One of the learning media that can be used is video media, the selection of video as a medium for disseminating innovation in addition to being able to combine visuals with audio can also be packaged in various forms. Azhar Arsyad (2011: 49) states that video is a picture-in-frame image, where frame by frame is projected through the projector lens mechanically so that the screen looks alive. This is supported by the fact that teachers have not used learning media to support the fluency or effectiveness of learning. In other words, learning media cannot be utilized optimally to support learning. Based on the background stated above, a teacher should have knowledge of the material to be taught, and be able to utilize learning media that can increase the participation of elementary school students. So with the development of video tutorial learning media, the big ball game model can improve the basic manipulative movement skills of elementary school students.

II. Research Methods

The development method used in this research is the Borg and Gall development model with 7 steps. This was done due to time and cost constraints and this is supported by Sukmadinata (2015) who stated that development research can be stopped until a final draft is produced, without testing the results. The results or impacts of implementing the development of movement activities already exist in small group trials and large group trials. The 7 steps are explained as follows: 1) Conducting preliminary research (pre-survey), 2) planning, 3) product drafting, 4) initial testing, 5) revising the product, 6) Conducting field trials, 7) Conducting product revision.

This research data was collected through qualitative and quantitative descriptive data. Qualitative data in the form of written interviews with input, suggestions, and responses from validators of experts, practitioners, observers and students. This type of quantitative data is obtained from the assessment scores given by validators, practitioners, observers, and students through validation activities and field trials. The data obtained were described in detail to determine the level of validity, practicality, and effectiveness of motion activities based on the play approach in order to develop video tutorials for the big ball game in order to develop basic manipulative movement skills.

III. Discussion

The result of this development research is to produce a video tutorial of a large ball game model in order to develop basic manipulative movement skills. This development research was carried out using development procedures Borg and Gall with 7 steps. Furthermore, the data for each stage of the research and development procedure is carried out as follows:

3.1 Needs Analysis

The results of the needs analysis on the importance of developing a video tutorial for the big ball game in order to develop basic manipulative movement skills then for needs analysis from the teacher showed that 75% said they really needed it, 20% answered they needed it and 5% said they were not needed. Furthermore, from the results of the needs analysis of the group of students, 80% stated that they really needed it, 14% answered that it was needed and 6% said it was not needed. This can be seen in the following table below:

Table 1. Needs Analysis of the Teacher Group for the Development of a Big Ball Game Tutorial Video

Category	Teacher	Percentage
Urgently require	15	75
Need	4	20
Less need	0	0
No Need	1	5
Amount	20	100

Table 2. Needs Analysis of Student Groups Development of Big Ball Game Tutorial Video

Category	Student	Percentage
Urgently require	40	80
Need	7	14
Less need	0	0
No Need	3	6
Amount	50	100

3.2 Product Validation

After the product of developing video tutorials for the big ball game for the development of manipulative basic movements, the next step is the expert test of physical education learning. In this case, his opinion was asked about the video tutorial for the big ball game for the development of manipulative basic movements. This expert validation aims to provide an assessment and input on video tutorial products for the big ball game for the development of manipulative basic movements so that they meet the theoretically and empirically feasible criteria for the development of manipulative basic movements. This is done so that the resulting video tutorial products can be better and suitable for use.

The product that has been made is then shown to physical education experts to assess how the product is developed. This test is given to 3 physical education experts to provide corrections and input and obtain product assessment data for the big ball game video tutorial for the development of manipulative basic movements whether it is feasible or not to be tested on a small or large scale. The following are suggestions from the three experts for video product tutorials for large ball games for the development of manipulative basic movements.

Table 3. Revision of Products from Experts

No. POST	Expert 1		Expert 2		Expert 3	
	Reason for Revision	Repair Suggestions	Reason for Revision	Repair Suggestions	Reason for Revision	Repair Suggestions
Game 1	The distance between the cones is too far	Distance between cones 1 meter	The distance between cones is revised	Don't be too far between cones	Enlarged the cone size	Cone size 71 cm
Game 2	The distance between	Distance between cones 1	The distance between	Don't be too far between cones	Enlarged the cone size	Cone size 71 cm

	the cones is too far	meter	cones is revised			
Game 3	The center of the ball is enlarged	In order to avoid collisions with children when competing to pick up the ball	Throwing target too high	Throwing target height 1.5 m	The target circle is too small	The diameter of the circle is 1 meter.
Game 4	The box for the jump is too high	The box is made as high as 10 cm	The distance between the boxes is too far	Distance made 0.5 m	Students are divided into 4 groups	So that students don't wait too long for their turn
Game 5	One foot and two foot jump distance is too far	Distance made 0.5 m	The distance is too far	The distance is shortened so the kids can jump	Don't be too close between teams	Each team is made a distance of 2 m
Game 6	The distance between the teams is too close	The distance between each team is 2 meters	The distance between the throwing position and the target is too close	The distance between the boxes is made 5 meters	All students are divided into groups	No students waiting

The following is a questionnaire instrument data obtained from physical education experts 1 to 3:

Table 4. Data Validation of Physical Education Experts

Respondent	Amount	P(%)
Expert 1	18	90
Expert 2	16	80
Expert 3	16	80
Amount	50	
Average %	83.33	

$$\text{Skor Empiris} = \frac{\text{Jumlah ahli 1} + \text{jumlah ahli 2} + \text{jumlah ahli 3}}{\text{Jumlah ahli Maksimum}} \times 100\%$$

$$\text{Skor Empiris} = \frac{50}{60} \times 100\%$$

Skor Empiris 83,33% (*Layak Digunakan*)

After the initial validation test of the modified game of a big ball game with a play approach, it can be tested on a small group trial, namely elementary school students.



Figure 2. Example of a Product Draft

3.3 Product Trial

a. Small Group Product Trial

The results of the development of a big ball game tutorial video for the development of manipulative basic movementssehe continued, it was tested in small groups to see the effectiveness of existing products. Testingproductbig ball game tutorial video for manipulative basic movement developmentconducted by 20 elementary school students. In the implementation of this small group trial, 20 students enjoyed playing this game, there was competition between teams and there was a winner.

Furthermore, to determine the effectiveness of the product can be seen the results of trials in small groups below:

Table 5. Small Group Trial Results

Respondents	Amount	P (%)
1	70	87.5
2	72	90
3	78	97.5
4	75	93.75
5	70	87.5
6	73	91.25
7	75	93.75

8	70	87.5
9	74	92.5
10	74	92.5
11	75	93.75
12	70	87.5
13	73	91.25
14	75	93.75
15	70	87.5
16	74	92.5
17	74	92.5
18	75	93.75
19	70	87.5
20	74	92.5
Amount	1461	
AVERAGE = 91.31%		

Based on the table above, to find out how big is the level of effectiveness in the small group product trial at SDS Gajahmada as measured by the basic movement ability instrument consisting of 20 items, it can be seen through calculation of the total score of the questionnaire items with the following formula:

$$\text{Skor Empiris} = \frac{\text{Jumlah Skor Yang Diperoleh}}{\text{Jumlah Skor Ideal Seluruh Item}} \times 100\%$$

$$\text{Skor Empiris} = \frac{1461}{1600} \times 100\%$$

$$\text{Skor Empiris} = 91.31\%$$

From the value obtained, it is known that the empirical score obtained is 91.31% (very suitable for use) so it can be stated that the manipulative game video tutorial product can be used.

b. Large Group Trial

The results of the development of video tutorials for the big ball game for the development of manipulative basic movements were then tested in large groups to see the effectiveness of existing products. The trial of the big ball game video tutorial product for the development of manipulative basic movements was carried out by 40 students. The modified game of a big ball game with a playing approach that was carried out in a large group trial showed good student enthusiasm because students before being tested had been given several explanations. Furthermore, the results of the assessment are as follows:

Table. 6. Percentage (%) Large Group Trial

Respondents	Amount	P (%)	Respondents	Amount	P (%)
1	75	93.75	21	74	92.5
2	71	88.75	22	72	90
3	73	91.25	23	75	93.75
4	76	95	24	77	96.25

5	71	88.75	25	71	88.75
6	72	90	26	75	93.75
7	73	91.25	27	75	93.75
8	76	95	28	76	95
9	75	93.75	29	73	91.25
10	71	88.75	30	74	92.5
11	74	92.5	31	74	92.5
12	68	85	32	70	87.5
13	76	95	33	77	96.25
14	74	92.5	34	75	93.75
15	76	95	35	77	96.25
16	75	93.75	36	78	97.5
17	77	96.25	37	78	97.5
18	75	93.75	38	75	93.75
19	79	98.75	39	79	98.75
20	75	93.75	40	76	95
Amount	1482		Amount	1501	

Based on the table above, to find out how much effectiveness the big ball game video tutorial for developing manipulative basic movements in large group product trials can be seen through calculating the total score of the instrument items with the following formula:

$$\text{Skor Empiris} = \frac{\text{Jumlah Skor Yang Diperoleh}}{\text{Jumlah Skor Ideal Seluruh Item}} \times 100\%$$

$$\text{Skor Empiris} = \frac{2983}{3200} \times 100\%$$

$$\text{Skor Empiris } 93.19\%$$

From the value obtained, it is known that the empirical score obtained is 93.19 (Very Appropriate to Use). This means that this research is sufficient to find out the validity of the big ball game tutorial video for the development of manipulative basic movements in elementary school students.

IV. Conclusion

Development of a big ball game tutorial video for the development of manipulative basic movements in elementary school students can assist teachers in teaching basic manipulative movement skills to elementary school students. Improving students' basic manipulative movement skills can develop optimally with teacher creativity in developing quality learning in accordance with predetermined competency standards for elementary school students. With big ball games, basic manipulative movement skills will increase and they will carry out activities happily.

References

Andi Yudianto.2017. Penerapan Video Sebagai Media Pembelajaran. Seminar Nasional Pendidikan. ISBN.978-602-50088-0-1.hal 234-237.

- Andri Arif Kustiawan, Aba Sandi Prayoga, Arief Nur Wahyudi Utomo, 2019. Upaya Meningkatkan Hasil Belajar Gerak Dasar Manipulatif Dengan Menggunakan Modifikasi Alat Bantu Pembelajaran Sederhana di Sekolah Dasar. *Jurnal Pendidikan Jasmani Indonesia*, Vol 15, No 1 hal 28-32.
- Arsani., et.al. (2020). Differences in Motivational Orientation in Physical Education in terms of Gender Differences. *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal* Vol 3 (3): 1428-1434.
- Arsyad, Azhar. (2011). *Media Pembelajaran*. Jakarta: Raja Grafindo Persada.
- Diana Sri dkk., 2018. Peningkatan Keterampilan Gerak Lokomotor Melalui Penerapan Model Pendidikan Gerak Format Halang Rintang. *Journal of Teaching Physical Education in Elementary School*. Vol 1 No 2 hal 33-40
- Harsuki. 2003. *Perkembangan Olahraga Terkini*. Jakarta: PT Rajagrafindo Persada.
- Jhony Hendra, Ghazali Indra Putra. 2019. Mengembangkan Keterampilan Gerak Dasar Manipulatif Bagi Anak Melalui Permainan Olahraga di Taman Kanak-Kanak. *Jurnal Muara Pendidikan* Vol.4 No 2 hal 438-444 .
- Kadek Ari Wibawa, FX Sugiayanto. 2015. Gerak Multilateral Melalui Permainan Bola Besar untuk Anak SD Kelas Bawah. *Jurnal Keolahragaan*. Vol.2 No 2 : hal 194-
- Pramono. 2010. *Pendidikan Jasmani, Olahraga dan Kesehatan*. Jakarta: Pusat Perbukuan Kemendiknas.
- Ria Lumintuarso. 2013. *Pembinaan Multilateral Bagi Atlet Pemula*. Yogyakarta: UNY press.
- Silvia Martha Agustin, Heryanto Nur Muhammad. 2015. Pengaruh aktifitas gerak permainan tradisional terhadap kelincahan siswa. *Jurnal Pendidikan Olahraga dan Kesehatan* Volume 03 Nomor 02 Tahun 2015, 549 – 553.
- Sulaiman, Khamidi, A., and Mintarto, E. (2020). The Evaluation of Athletic Extracurricular Management of Dr. Soetomo and Jalan Jawa Junior High School in Surabaya. *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal* Vol 3 (1): 11-19.
- Sujiono, Bambang, dkk. 2007. *Metode Pengembangan Fisik*. Jakarta: Universitas Terbuka.
- Suyantini, Iis. 2013. Peningkatan Gerak Manipulatif Melalui Permainan Bola Beranting pada Anak Usia 5-6 Tahun. *Artikel Penelitian*. PG PAUD, FKIP Universitas Tanjung Pura, Pontianak
- Suryono, Mahardika, I.M.S., and Tuasikal, A.R. (2020). Pride Learning Model in Order to Improve the Physical Fitness of Indonesian Naval Academy Cadets. *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal* Vol 3 (1): 235-243.
- Yani Nurdiani. 2013. Penerapan prinsip bermain sambil belajar dalam mengembangkan multiple intelligencia pada pendidikan anak usia dini. *Jurnal EMPOWERMENT* Volume 2, Nomor 2 September 2013, ISSN No. 2252-4738.