

**Manipulative Movement Learning During the COVID-19 Pandemic: An Approach to Implementing Online-Based Physical Education Learning****Iif Firmana^{1✉}, Herman Subarjah², Agus Mahendra³, Nuryadi⁴, Davi Sofyan⁵**

Postgraduate School Universitas Pendidikan Indonesia, Bandung, Indonesia and STIKP Muhammadiyah Kuningan, Kuningan, Indonesia¹
Universitas Pendidikan Indonesia, Bandung, Indonesia^{2,3,4}
Universitas Majalengka, Majalengka, Indonesia⁵

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Abstract

The purpose of this study is to see how using online learning improves learning outcomes through manipulative movements. The method used in this research is class action research. The subjects involved in this study were 30 students, consisting of 18 male students and 12 female students. This study was divided into two cycles, each of which included two actions. Data collection techniques in this study included observation and tests of manipulative learning outcomes. The results of this study indicate that the application of online learning has an influence on increasing learning outcomes through manipulative movements. This can be seen from the observational data on the learning outcomes of manipulative movements; the category is less if it is presented at 65.64%. After being given treatment, the learning outcomes of students' manipulative movements were in the sufficient category if the percentage was 71.28%. This research concludes that online learning is an alternative to improving the learning outcomes of manipulative movements during the COVID-19 pandemic.

How to Cite

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✉ Correspondence address :
E-mail: iiffirmana@gmail.com

INTRODUCTION

Manipulative skills are very important for a child to have because they can give a positive impression in developing sports competence, such as increasing physical activity and fitness (Barnett, 2008). Manipulative movement skills have an important role in predicting the movements to be made in sports activities (Balali et al., 2019). In addition, having good manipulative skills can increase student self-confidence because their existence is recognised and it is easy to use them in the school environment and outside of school (Al Ardha et al., 2018).

Manipulative skills are games played with objects such as balls; for example, children roll balls, throw balls, and hit balls (Sumantri, 2016). The same thing was expressed by Al Ardha et al. (2018), who revealed that throwing, catching, kicking, attacking, rolling, and herding are some examples of manipulative skills. Likewise, Hidayat (2017) said manipulative skills are movements that are developed when children master various objects.

Manipulative movement skills are a child's activity related to objects outside of himself that must be manipulated in such a way as to form a skill (Jhony & Putra, 2019). Manipulative movement skills are movement skills that are developed when children master various objects (Hidayat, 2017). Manipulative movement skills are movements that require coordination with space and objects around them or activities carried out by the body with the help of tools (Suyantini, 2013).

Manipulative skills are the most important basic abilities for children because they will help them to provide some basic ideas and abilities before they learn more complex sports movement skills (Al Ardha et al., 2018). There are several factors that can affect manipulative movement skills, including instructions when wanting to make a move, the size of the object to be used, age, and gender (Mahendra, 2015).

A teacher is required to be creative in providing an approach to the learning process. There are many approaches that teachers can apply, one of which is a multimedia-based instructional approach. Using multimedia-based instruction to convey information in learning is very promising. Learning to use multimedia can improve the teaching process in elementary schools, secondary schools, and universities (McKethan et al., 2001).

In the learning process in the classroom, not all students understand the presentation delivered by the teacher. In addition, teachers are required to achieve learning objectives, starting

with cognitive, affective, and psychomotor. As revealed by McKethan et al. (2001), multimedia can affect cognitive outcomes, psychomotor outcomes, children's motor patterns, and manipulative skills.

Online learning can improve the quality of Indonesian education because students are more competent at mastering competencies independently and are increasingly contextual (Syarifudin, 2020). Online learning is an educational innovation that involves elements of information technology in learning, besides the fact that students have flexibility in study time so they can study anytime and anywhere (Fitriyani & Fauzi, 2020). Online learning is learning that is carried out using the internet as a place to channel knowledge (Syarifudin, 2020).

Google Classroom is a medium that can support teaching and learning activities (Wijayanto, 2020). Google Classroom is a fantastic tool for teachers who want to keep track of their students' assignments, attendance, daily tests, discussions, and other activities. Google Classroom media can be accessed via computers and mobile phones (Wicaksono & Rachmadyanti, 2016).

Google Classroom is a learning application that can be used by educators and students to share files in online teaching and learning activities (Mahardini, 2020). Google Classroom is an application offered by Google as a learning management system (Nurfalah, 2019). as well as for academic needs and non-profit organisations that can be accessed free of charge (Setiawan & Wicaksono, 2020).

Google Classroom is a virtual class that is similar to face-to-face or physical classes. The characteristics of Google Classroom are that it is directly connected to the Google Documents service and Google Drive, and its use is very easy (Tipton & Rich, 2015). The functions offered to educators are like conventional classes, starting with teaching, giving questions, giving assignments, making announcements, and using multimedia (Hidayat & Sudibyo, 2018). Peer feedback, sharing notes, sharing informal learning, student projects, collaboration with peers, and virtual teacher meetings (Asnur, et al., 2019)

The advantages of using the Google Classroom include increasing teacher and student IT mastery; teachers can use various media for the learning process, both contained in the Google Classroom and other media that can be linked to the Classroom (Mahardini, 2020). Benefits of Google Classroom Easy setup: educators can add students directly or share a code with their class to join. Teachers can quickly create, review,

and grade assignments in one place thanks to a time-saving, paperless workflow.c). Improving organization, students can see all their assignments on the assignment page, and all material is automatically saved to a folder on Google Drive. d). Improve communication; allow teachers to send announcements and start discussions directly; Google Classroom does not contain advertisements, never uses user content or student data for advertising, and is free (as of January 1, 2016).

The results of previous studies showed that manipulative movements were influenced by several factors, namely physical education programmes (McKenzie, et al., 1998), multimedia (McKethan et al., 2001), basic technical training (Sulistiyani, 2016), game models (Hidayat, 2017), challenging games (Balali et al., 2019), Yasin, 2018; Arifin & Kumaat, 2016), physical training and exercise programmes (Dana & Christodoulides, 2020), There has always been research that discusses manipulative movements in the last five years. This indicates that manipulative movements are very interesting and important for research. From 2016 to 2021, no one has discussed the role of multimedia in increasing children's manipulative movements. Finally, this was investigated about 23 years ago, namely about video disc instructions for learning manipulative movements. For this reason, this study aims to determine the effect of online learning on the learning outcomes of manipulative movements.

METHODS

The research method used in this study is called "class action research" (classroom action research). In accordance with the objectives of classroom action research, which functions to improve physical education learning conditions, the researcher applies an online learning model to improve the learning outcomes of manipulative movements. The population in this study was 30 students in class VI of SD Negeri Sindangsuka, Luragung District, Kuningan Regency. While the sample in this study was one class consisting of 18 male students and 12 female students, Observation and learning achievement tests were used to collect data in this classroom action research. Observation is the stage of data recording that includes the process and results of the implementation of activities. The observation sheet is adopted from Mahendra (2015), with the assessing indicators being (1) the initial attitude when going to make the movement, (2) the implementation or when doing the movement, and (3) the final attitude after making the movement. In addition to

observations for data collection, the instrument in this study uses a learning achievement test with the following format **Table 1**.

Table 1. Assessment format

Aspects assessed	Score					Score Total
	1	2	3	4	5	
A. Initial Attitude						
Initial stance						
How to swing your arms backwards						
Posture throwing position						
Steps forward						
Maximum Score : 20						
B. Implementation						
Initial movement of the body and throwing arm						
Throwing arm movements						
Release the ball from the hand						
Angle of rise of the ball or object thrown						
Maximum Score : 20						
C. Final Attitude						
Follow-up movement of the arms						
Balance position at the end of the throw						
Bounce the ball from the throw						
Continuation of the final posture of the body						
Maximum Score : 25						

Format for Assessment of Manipulative Movement Learning Outcomes (Source: Mahendra, 2015)

The design used in this study uses the PTK cycle design from Arikunto. In the application of online learning carried out in several meetings in the same class, The stages carried out in this study are as **Figure 1**.

Researchers will use two cycles in its implementation; the first cycle has four stages: the planning stage, the implementation stage, the observation stage, and the reflection stage. And in each cycle, two actions are given. The actions

taken by the teacher in learning activities are as follows:

1. Physical education teachers use daily activity plans (RKH) made by researchers.
2. Physical education teachers and students use the Google Classroom application.
3. Convey learning objectives.
4. Explain the steps of the activity.
5. Do apperception.
6. Accompany students in learning activities.
7. Observation (researchers make observations of the course of learning activities).
8. Reflection (carried out with physical education teachers using collaborative research techniques to evaluate the learning activities that have been carried out. The results of the evaluation in cycle 1 will be used as a reference for planning the next steps in cycle 2.

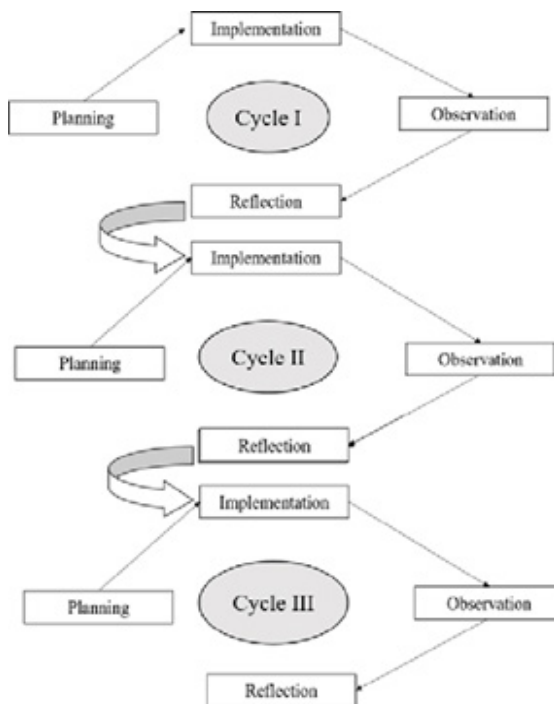


Figure 1. The research stage

Data analysis is the process of systematically searching for and compiling data obtained from observations, field notes, and tests so that it is easy to understand. After all the data has been calculated, a presentation is made to determine whether cycle 1 of this research is sufficient or should be continued to the next cycle.

Next, the researcher reflects again on whether this research is said to be successful if the student learning outcomes reach the completeness of KKM physical education. There is an increase in learning outcomes if the percent-

age of student evaluation data achieves completeness above the KKM. The percentage was taken by mutual agreement between the researcher and the physical education teacher based on the students' abilities. This indicator of success can be seen from the results of tests that have been carried out by students and the results of interviews with physical education teachers.

RESULTS AND DISCUSSION

The results of observations that the researchers made on January 11, 2021, from 09:00 a.m. to 12:00 p.m. WIB at SD Negeri Sindangsuka, Kuningan Regency, obtained an initial picture that the manipulative movements of class VI students at SD Negeri Sindangsuka were at a percentage of 65.64%. This description indicates that the manipulative movements of class VI students at SD Negeri Sindangsuka are in the less extreme category. These conditions have encouraged researchers to apply online learning to manipulative motion material.

The results of the Cycle I (Action I) study of the practise of manipulative evaluation reached a total of 1290 with an average of 34.43, and the percentage gain achieved was 66.15%. From these results, it can be seen that the basic manipulative movement level of students has increased by implementing online learning, even though it is still in the lower category. We can see this from the increase in the percentage value of the assessment of manipulative movement practises from 65.64% to 66.15%.

The results of the research in Cycle I (Action II) for the assessment of manipulative movement practises reached a total of 1300 with an average of 35.37, and the percentage gain achieved was 66.66%. From these results, it can be seen that the level of students' basic manipulative movements has increased, even though they are still in the lower category. We can see this from the increase in the percentage value of the assessment of manipulative movement practises from 66.15% to 66.66%.

The results of Cycle II (Action I) research on the practise of manipulative evaluation reached a total of 1350 with an average of 35.10, and the percentage gain achieved was 69.23%. From these results, it can be seen that the basic manipulative movement level of students has increased by implementing online learning, even though it is still in the lower category. We can see this from the increase in the percentage value of the assessment of manipulative movement practises from 66.66% to 69.23%.

The results of Cycle II (Action II) research on manipulative movement practises reached a total of 1390 with an average of 35.27, and the percentage gain achieved was 71.28%. From these results, it can be seen that the basic manipulative movement level of students has increased from the low category to the moderate category. We can see this from the increase in the percentage value of the assessment of manipulative movement practises from 69.23% to 71.28%.

Based on the results of action research from cycles 1 and 2, it is known that the application of online-based learning can improve learning outcomes for manipulative movements. Meanwhile, if it is described in the form of a bar graph, the achievement of manipulative learning outcomes for class VI Sindangsuka Elementary School students can be described as **Diagram 1**.

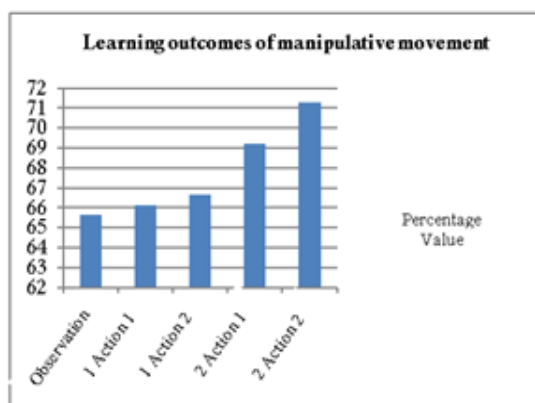


Diagram 1. Increasing Manipulative Movement Learning Outcomes

The use of learning media in the learning process is a method that can be used by physical education teachers in implementing online learning. Online learning is a new way of teaching and learning that utilises electronic devices, especially the internet, in the delivery of learning (Rigianti & Aditii, 2020). Online learning can be done by combining several types of learning resources, such as documents, images, videos, and audio (Anggianita, Yusnira, & Rizal, 2020). At the elementary school level, an application that is effectively used in the online learning process is the Google Classroom application (Waryanto, 2006). As in research that has been carried out at SD Negeri Sindangsuka, Kuningan Regency, using online learning, the Google Classroom application can help improve learning outcomes for manipulative movements.

Based on the results of observations about the learning outcomes of manipulative motion students in grade VI at Sindangsuka Public Ele-

mentary School, Luragung District, Kuningan Regency, they are in the less category if the percentage is 65.64%. From the results of these observations, the researcher gave treatment by applying online learning to students at Sindangsuka Elementary School. After being given treatment, the development of learning outcomes from manipulative movements is seen as follows:

The results of the research in Cycle I (Action I) on the assessment of manipulative learning outcomes reached 1290 with an average of 34.43, and the percentage gain achieved was 66.15%. The results of the research in Cycle I (Action II) in the assessment of manipulative learning outcomes reached 1300 with an average of 35.37, and the percentage gain achieved was 66.66%. The results of Cycle II (Action I) study of learning outcomes of manipulative movements reached a total of 1350 with an average of 35.10, and the percentage gain achieved was 69.23%. The study's results in Cycle II (Action II) for the assessment of learning outcomes for manipulative movements totaled 1390 with an average of 35.27 and a percentage achieved of 71.28%. From these results, it can be seen that the level of learning outcomes for students who implemented online-based learning has increased in the moderate category. We can see this from the increase in the percentage value of the assessment of manipulative movement practises from the initial ability of 65.64% to 71.28%.

As stated in Noveandini & Wulandri (2010) which reveal the benefits of online learning, some of them are: 1. Helping the difficulties faced by parents, especially mothers, in teaching certain material, 2. By helping to create a pleasant atmosphere in the learning process, 3. Assisting children with learning disabilities who are underachieving because online learning has advantages, namely visual auditory-kinesthetic learning, so that all students' learning methods can be directed without any students feeling underserved; 4. Assisting students in becoming good job candidates by having internet knowledge, understanding, and skills. Meanwhile, according to Kuntarto (2017), online learning is able to increase the absorption of students in receiving learning, and it also provides new experiences that are more challenging than conventional learning models. In addition, online learning (via Google Classroom) can also improve students' understanding and learning outcomes (Wulantina, 2019).

The limitation in this study is online learning that uses the google classroom application. Online learning is a form of learning that is able to make students independent and not dependent

on other people. This is because, through online learning, students will focus on the screen of the device to complete assignments or take part in ongoing discussions (syarif hidayatullah, umu khourouh, irany windhyastiti, ryan gerry patalo, 2020). There are no unnecessary or unimportant interactions or conversations. Everything discussed is important to completing the competencies to be achieved. As a result, it is hoped that online learning will empower students to construct their own knowledge.

In online learning, there are many applications that can be used, one of which is google classroom. Google classroom is a free application provided by google for use by teachers and students. This application is very suitable for developing countries with limited budgets. In addition, this application can act as a learning management system in schools, colleges, and higher education institutions (syarifudin, 2020). By using google classroom, teachers make effective use of class time.

CONCLUSION

Through the application of online learning, manipulative movement skills can be learned optimally. We can see this from the percentage of learning outcomes in manipulative motion of class vi students of sd negeri sindangsuka starting from observation to cycle 2 of action 2. There is an increase. The application of the online learning model is seen as the most appropriate for improving the learning outcomes of manipulative movements in sindangsuka elementary school. By implementing online-based learning, learning activities can run effectively and efficiently.

With each cycle and the actions given, the atmosphere for learning physical education through manipulative movement has become more conducive. After being given the final action in each cycle, the researcher reflects so that the next action is to implement online-based learning even more optimally. In addition, the movement treasure of class vi sindangsuka elementary school students has increased. Thus, it is hoped that the implementation of online-based learning will be used as a solution to improve the learning outcomes of manipulative movements.

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