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Improving Learning Outcomes of Manipulative Basic Movements (Run-Throw-Catch) through Station Teaching Strategies in Grade III Students in Elementary School

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Abstract
This study aims to improve basic manipulative movement skills, especially throwing and catching in 3rd grade students of SD N 1 Kalijirek Kebumen, through the application of station teaching strategies. The research method used is Classroom Action Research (PTK) which consists of two cycles. The design in this class action research uses the Kemmis & Mc. Taggart model where the stages consist of planning, implementation of actions, observation, and reflection. The research instrument used was an assessment of manipulative basic movement skills, while the data analysis used was quantitative and qualitative descriptive. The results of the study showed a significant improvement in students' motor skills. In the first cycle, the percentage of competency achievement was 50%, increasing to 87% in the second cycle, exceeding the Minimum Completeness Criteria (KKM). Thus, it can be concluded that the use of station teaching strategies can be applied effectively in manipulative movement learning activities in physical education. For subsequent research, it can use a wider range of materials as well as more diverse research methods and subjects.

Keywords: Station teaching, Manipulative Movement, Running, Throwing-Catch

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INTRODUCTION

Physical education in elementary school has an important role in the physical, motor, and social development of students. One of the materials taught in physical education is basic manipulative movements, which include running, throwing, and catching. These movements form the basis for the development of more complex motor skills, which are very useful in daily life and sports activities. Nonetheless, many learners have not mastered these skills well, which can affect their performance in various physical activities. For this reason, a more effective method is needed in teaching this skill. Based on research by Hartanti et al. (2020), The use of varied and engaging teaching strategies is essential to improve students' motivation and learning outcomes in physical education.

According to research conducted by (Syaputra et al., 2023), one method that can improve learning outcomes is the use of station teaching strategies. In this strategy, students are divided into small groups that each carry out activities at different stations. This strategy

not only allows for more focused and structured learning, but also improves interaction between learners and teachers. This is in line with research fromi Wahyudi (2024), which states that the station teaching strategy is effective in improving students' motor skills because it provides an opportunity for students to practice intensively on various skills in a well-organized time. The use of this strategy will be very useful for learning basic manipulative movement material.

Basic manipulative movements such as running, throwing, and catching require constant practice for learners to master them well. According to Maulida et al. (2024), effective learning on manipulative basic movement materials must include sufficient opportunities for learners to practice in person. Practice-based learning is more effective in improving students' motor skills (Siti Rodi'ah, 2021). By using the station teaching strategy, students can focus more on mastering one basic movement skill at each station, to improve their overall learning outcomes.

In this context, the application of the station teaching strategy to manipulative basic movement materials becomes relevant to improve students' skills. However, at SD N 1 Kalijirek Kebumen based on observations on January 8, 2025, there are problems in the teaching of manipulative basic movement material. Based on the results of initial observations, many students experienced difficulties in mastering the skills of running, throwing, and catching movements. Most students do not have good coordination between hands and eyes, and do not understand the correct basic techniques in performing these movements. A preliminary study in grade III showed that about 60% of students still had difficulty coordinating their body movements properly, so they could not follow instructions properly. This shows the need for more innovative and fun learning strategies. With the implementation of the station teaching strategy, it is hoped that learning will be more structured and provide opportunities for each student to practice more, so that they can overcome existing problems.

Previous research conducted by Cahyaningtias & Ridwan (2021) shows that the application of more interactive methods in physical education can increase students' motivation to actively participate in learning. Learning with a station teaching approach allows learners to move dynamically from one station to another, which will maintain their level of engagement. This is very important, considering that one of the biggest challenges in physical education learning is the low motivation of students to engage in physical activity (Pangestu & Akhiruyanto, 2023).

The purpose of this study is to identify whether the application of the station teaching strategy can improve basic manipulative movement skills in grade III students at SD N 1 Kalijirek. This study will examine the impact of the application of this strategy on improving students' running, throwing, and catching skills, as well as how this strategy can overcome the obstacles faced by teachers and students in physical education learning.

METHOD

This study uses the classroom action research method (PTK) with a collaborative approach. The place where this research was carried out at SD N 1 Kalijirek, Kebumen. The research time takes place in the even semester of the 2024/2025 school year, which is from January to February 2025.

The participants in this study are students in grade III of SD N 1 Kalijirek Kebumen. The number of subjects contained in grade 3 is 24 students in one class with details of 11 male students and 13 female students. The average age of students in grade 3 is 8-9 years. Of these 24 students, all of them are normal children, not disabled in the sense that there are no ABK (Children with Special Needs) children. Students have been willing to become participants in this study with the permission of the subject teacher and homeroom teacher.

The sampling technique uses the total sampling method, where samples are selected based on special characteristics that are relevant to the research purpose, namely all grade 3 students. The data sources in this Classroom Action Research (PTK) are students, teachers as collaborators, and researchers as observers. The data collection technique in the Classroom Action Research (PTK) consists of: assessment and observation. This study uses a research design of an action research model with Kemmis & McTaggart, (2005)., 2024).

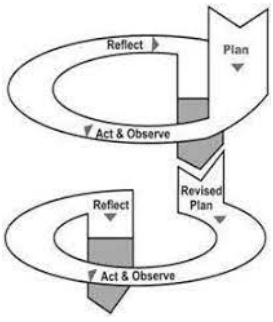

Figure 1. Action Research Spiral

This research was carried out in two cycles, where each cycle consists of four components, namely planning, action, observation, and reflection. The planning stage begins with preparing plans, teaching materials, learning scenarios, and lesson plans. At the action

stage, the plan that has been made is implemented twice in each cycle, with the help of collaborators as observers. The observation stage was carried out to monitor students' skills in carrying out front rolling movements using station learning strategies, using observation instruments. Before and after the action, pretests and posttests are carried out to measure learning outcomes. The reflection stage involves discussions between researchers and collaborators to evaluate the success of the action, and if the goal has not been achieved, then it is continued to the second cycle. The instrument used in this study is the assessment of basic manipulative movement skills. The rubric is in Table 1.

Table 1. Basic Manipulative Motion Assessment Rubric

MOVEMENT SKILLS	EARLY DEVELOPMENT	DEVELOPMENT	PROPER	CAPABLE	SKILLED	
	Students are at level 1 and the learning process is at level 2	Students master levels 1-2 and the learning process to level 3	Students master levels 1-3 and the learning process to level 4	Participants Educate mastering levels 1-4 and the learning process to Level 5	Students master levels 1-5	Sko r
	Level 1	**Level 2**	**Level 3**	**Level 4**	**Level 5**	
Knowledge Motion concept	Students have Limited understanding of basic throwing and catching techniques and principles.	Students know some basic concepts but may have difficulty explaining in detail.	Students understand Principles of Utilizing Throwing and Catching Movements Well in Activities	Students have an understanding who are strong about how, and the use of throwing and catching, can explain clearly to others.	Students have an understanding in-depth on every technical and conceptual aspect of throwing and catching, including its involvement in the activity and its impact on health.	
Throwing and Catching Motion Skills	Throwing and Catching Motion Skills	Students can Execute basic throwing and catching techniques with a certain amount of success, but it is necessary to improvements in several areas.	Students can Carry out throwing and catching techniques well and consistently, have good control of the body.	Students have High technical skills, able to throw and catch with accuracy and high consistency.	Students have extraordinary technical skills, able to execute throwing and catching movements with a very high level of expertise.	
Attitude	Students showed that their attitudes towards throwing and catching exercises still needed to be improved, perhaps lacking enthusiasm.	Students showed a more positive attitude towards training, but needed more motivation and enthusiasm.	Students have a positive, enthusiastic and consistent attitude towards throwing and catching exercises..	Students demonstrate a positive and professional attitude in training, able to provide support to teammates..	Students have an extraordinary attitude, always enthusiastic and positive, becoming a source of inspiration for teammates and other individuals.	

This validity data analysis uses the Gregory formula. The Gregory formula is a method used to evaluate content validity by relying on the assessment of 2 experts (Nugrahani & Anam, 2022). This approach requires researchers to collect expert opinions on each item in the instrument, especially regarding the relevance of the item to the construct being measured. In using the Gregory formula, a panel of experts is involved in evaluating the items in the instrument, then the data is analyzed using the Gregory validity matrix. Experts in the validity of adaptive physical education and experts in special needs education

who have more than 10 years of experience in their fields, produced four assessment categories, and a score of 0.8 was obtained.

The data analysis technique in this study was adapted from Sanjaya (2022). The first stage is data reduction focused on the problem. At this stage, the researcher groups the data based on motor skills (quantitative data). Quantitative data is obtained based on test data (post and pre-action). Then, to strengthen it, it is supported by qualitative data obtained based on observations and documentation. The second stage, implementation in the second stage involves data analysis to provide deeper meaning and interpretation. The research data is processed and analyzed based on the results of observations. This observation data is analyzed and described in such a way that it can be described the basic manipulative movement skills activity of running-throwing-catching through the station teaching strategy. At this stage, the researcher calculates quantitative data in the form of a percentage increase in basic movement abilities obtained through pre-action tests and post-action tests. The increase in manipulative movement of running-throwing-catching is calculated using the following formula:

Improvement = (post-action score - pre-action score) x 100%.

The third phase, in the third stage is making conclusions. This stage is carried out by testing the hypothesis based on the results of the research and discussion. Decision making actions taken based on the hypothesis refer to the success criteria. Indicators of success, This study is stated to have met the success criteria if there is an increase in basic manipulative movement skills of running-throwing-catching through the station teaching strategy in grade 3 students of SD N 1 Kalijirek Kebumen. Mastery of the material follows the achievement standard of 70%. Interpretation of material mastery is divided into 5 categories of achievement of learning outcomes according to Purwanto & Suharjana (2017) can be seen in the table 2.

Table 2. Assessment achievement criteria

Predicate	Mastery (%)
Very Low	<60
Low	61 – 70
Medium	71 – 80
high	81 – 90
Very high	91 – 100

RESULTS AND DISCUSSION

Result

Siklus 1

The pre-action stage is the initial stage carried out before conducting research, by providing an initial test. In this test, students are immediately given a test with an instrument that has been prepared without any action. According to Pangkey & Mahfud (2020), This test is used to determine the actions that must be taken in each cycle and to determine the improvement in learning outcomes after learning is carried out in the following cycles. The following are the results of learning manipulative movements of grade 3 students in the pre-action stage 1 which have been presented in table 3. Next, it is continued with the results of learning manipulative movements of grade 3 students in the cycle stage 1 which can be seen in table 4.

Table 3. Results of manipulative movement learning of grade 3 students in pre-action 1

Value Range	Predicate	Frequency	%	Information
<60	Very Low	8	33 %	Not finished yet
61-70	Low	10	42 %	Not finished yet
71-80	Medium	2	8 %	Completed
81-90	high	4	17%	Completed
91-100	Very high	0	0 %	Completed
	Total	24	100 %	

Table 4. Results of manipulative movement learning for grade 3 students in cycle 1

Value Range	Predicate	Frequency	%	Information
<60	Very Low	4	17 %	Not finished yet
61-70	Low	8	33 %	Not finished yet
71-80	Medium	6	25 %	Completed
81-90	high	4	17%	Completed
91-100	Very high	2	8%	Completed
	Total	24	100 %	

Based on the results of the post-cycle 1 test, the ability of grade 3 students in performing running, throwing, and catching movements in basic manipulative movement learning through the station teaching strategy has increased compared to the test conducted in the pre-Action 1 test. For more details, there has been an increase in the learning outcomes of grade 3 students through the station teaching strategy in the following table 5.

Table 5. Comparison of learning outcomes 3 at pre-action stage 1 and cycle 1

	Pre-Action 1		**Cycle 1**	
KKM	**Frequency**	**%**	**Frequency**	**%**
<70	18	75%	12	50%
>70	6	25%	12	50%

Based on the table above, the increase in results obtained has not reached the minimum completion criteria (KKM) as expected. So, the researcher decided to continue to the cycle 2 stage.

Cycle 2

Cycle 2 is a continuation of the results of the analysis and reflection in cycle 1. The implementation of cycle 2 refers to the implementation of cycle 1 because it is an improvement from cycle 1. In cycle 2, the researcher re-observed the manipulative movement skills of grade 3 students through the station teaching strategy. The results obtained are in table 6 below.

Table 6. Results of manipulative movement learning of grade 3 students in pre-action 2

Value Range	**Criteria**	**Frequency**	**%**	**Information**
<60	Very Low	4	17%	Not finished yet
61-70	Low	8	33%	Not finished yet
71-80	Medium	6	25%	Completed
81-90	high	4	17%	Completed
91-100	Very high	2	8%	Completed
	Total	24	100 %	

Table 7. Results of manipulative movement learning for grade 3 students in cycle 2

Value Range	Criteria	Frequency	%	Information
<60	Very Low	2	8%	Not finished yet
61-70	Low	1	4%	Not finished yet
71-80	Medium	10	42%	Completed
81-90	high	8	33%	Completed
91-100	Very high	3	13%	Completed
	Total	24	100%	

Based on the results of learning manipulative movements of grade 3 students through the station teaching strategy in cycle 2, there was a significant increase compared to the results in pre-action 2. The following is a comparison of the results of learning basic manipulative movements of grade 3 students in pre-action stage 2 and cycle 2.

Table 8. Comparison of learning outcomes of pre-action stage 2 and cycle 2

	Pre-Action 2		Cycle 2	
KKM	**Frequency**	**%**	**Frequency**	**%**
<70	12	50%	3	13%
>70	12	50%	21	87%

Based on the results obtained in cycle 2, it can be seen that the manipulative movement ability has changed very well and exceeded the minimum completion limit determined by the researcher, which is 75%. This action research is considered successful, therefore the researcher decided to stop the research and no longer need to continue in cycle 3.

Discussion

Based on the results of the action research in cycles 1 and 2, it can be concluded that there was an increase in the learning outcomes of basic manipulative movements (running-

throwing-catching) in grade 3 students at SD N 1 Kalijirek Kebumen. From the results of the analysis and observations carried out, there was a significant increase in pre-action 1 to cycle 1 and in cycle 1 to cycle 2. In pre-action 1, the learning outcomes of basic manipulative movements of grade 3 students, the number of students who completed was 6 students or 25% and those who did not complete were 18 or 75%.

In cycle 1, basic manipulative movement material was given to class students through the station teaching strategy because this strategy was considered appropriate for learning involving running, throwing and catching movements. It can be seen from the results of learning basic manipulative movements in cycle 1 that it has shown an increase in students who have completed it, namely 12 students or 50% and those who have not completed it, namely 12 students or 50%. Students' motivation and enthusiasm for learning have increased, students feel happier and more active with the learning provided through this station teaching strategy. However, in cycle 1, they have not been able to achieve the minimum completion criteria (KKM) as expected. There are still some students who still find it difficult because they are not used to the new learning method. Students have also not mastered the basic manipulative movement skills of running, throwing and catching. Seeing the learning outcomes that are not as expected, the researcher plans corrective actions by conducting reflection. Reflection helps understand the effectiveness of actions and design new strategies to overcome weaknesses. Therefore, improving basic manipulative movement skills through the station teaching strategy was continued in the second cycle by providing reinforcement for indicators that had not yet reached the minimum assessment criteria.

The results of the implementation of cycle 2 showed a significant increase in various aspects that were the focus of improvement such as understanding of movement, throwing accuracy, eye and hand coordination and also student learning motivation. The results of learning manipulative movement in grade 3 students in cycle 2 have reached the minimum assessment criteria target with the number of students who completed it being 21 students or 87% and those who did not complete it being 3 students or 13%. The achievement of these learning outcomes was obtained because students had adapted to the learning that had been given. This is in accordance with research that has been conducted by Syaputra et al. (2023) that there is an increase in the results of learning to throw and catch the ball, proven by the results obtained in the first cycle showing a 23% increase in throwing ability and 27% for catching with 64% and 68% completeness. In the second cycle, an increase in throwing ability of 22% and catching ability of 23% was obtained. So that in this second cycle, 86% completeness was obtained for throwing ability and 91% for catching.

That there is an increase in the results of learning to throw and catch the ball, proven by the results obtained in the first cycle showing a 23% increase in throwing ability and 27% for catching with 64% and 68% completeness. In the second cycle, an increase in throwing ability of 22% and catching ability of 23% was obtained. So that in this second cycle, 86% completeness was obtained for throwing ability and 91% for catching (Kurniawati et al., 2021). In several studies, the station teaching learning method has great potential to overcome various problems and obstacles that arise in the teaching and learning process.

The station teaching strategy is currently one of the popular strategies in the physical education learning process. The station teaching learning strategy organizes the environment so that two or more tasks can take place in the room simultaneously, each task must be done in a different base from the other tasks so that each task has its own base (Muhajir & Raushanikri, 2022). This strategy is very effective to use in physical education learning, especially to increase active participation, collaboration, and student skills. With good class planning and conditioning, this strategy can optimize learning according to the needs and characteristics of students.

The novelty of this research is in the learning method that can improve basic manipulative movement learning through the station teaching strategy for grade 3 students. Based on the results of this study, it shows that the station teaching method is effective in improving the learning outcomes of basic manipulative movement running-throwing-catching in grade 3 students. This method provides more active learning, improves movement skills, cooperation and development of self-awareness.

CONCLUSION

This study concludes that the station teaching learning strategy has been proven to be effective in learning basic manipulative throwing and catching movements in physical education, which is seen from the process and results obtained. This method not only makes learning more enjoyable but also allows students to practice skills directly. Learning that involves direct physical activity provides opportunities for students to improve their motor skills through repeated and structured practice. Students who are actively involved in learning increase their motivation and participation, which helps improve their skills. One good recommendation for physical education is for teachers to continue to develop and implement creative and innovative learning strategies. For this reason, this station teaching strategy can be an alternative for teachers to improve the quality and effectiveness of physical education

learning. For further research, it can use broader materials and more diverse methods and research subjects.

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REFERENCES

Cahyaningtias, V. P., & Ridwan, M. (2021). Efektivitas Penerapan Media Pembelajaran Interaktif terhadap Motivasi. *Riyadhoh : Jurnal Pendidikan Olahraga*, *4*(2), 55. https://doi.org/10.31602/rjpo.v4i2.5727

Hartanti, M. D., Nurhasan, N., & Syam Tuasikal, A. R. (2020). Pengaruh Pembelajaran Sirkuit Berbasis Pendekatan Saintifik Terhadap Hasil Belajar Dribble Dan Shooting Bola Basket. *Multilateral Jurnal Pendidikan Jasmani Dan Olahraga*, *19*(2), 111. https://doi.org/10.20527/multilateral.v19i2.8614

Kemmis & McTaggart. (2024). Metode Penelitian Tindakan Kelas (PTK): Panduan Praktis untuk Guru dan Mahasiswa di Institusi Pendidikan. *Pubmedia Jurnal Penelitian Tindakan Kelas Indonesia*, *1*(4), 19. https://doi.org/10.47134/ptk.v1i4.821

Kurniawati, A., Prasetiyo, A. F., Pratama, A. K., & Supardi, A. Y. (2021). Pengaruh Model Pembelajaran Tutor Sebaya terhadap Hasil Belajar Siswa dalam Pembelajaran Renang Gaya Dada di Sekolah Dasar. *Biormatika : Jurnal Ilmiah Fakultas Keguruan Dan Ilmu Pendidikan*, *7*(2), 186–198. https://doi.org/10.35569/biormatika.v7i2.1145

Maulida, M., Hartono, S., Fawaid, M., Nasrullah, N., Nafis, M., Amien, M., Pratiwi, E., & Fitrianto, A. T. (2024). Peningkatan Kemampuan Gerak Dasar Manipulatif (Lempar Tangkap) Siswa/Siswi Kelas Ix Smpn 3 Banjarmasin. *Riyadhoh : Jurnal Pendidikan Olahraga*, *7*(1), 138. https://doi.org/10.31602/rjpo.v7i1.14975

Muhajir, & Raushanikri, Z. (2022). *Olahraga , Dan Kesehatan Buku Panduan Guru*.

Nugrahani, I. M., & Anam, K. (2022). Validitas Isi Model Latihan Tenvol Untuk Meningkatkan Kemampuan Smash Bolavoli. *Riyadhoh : Jurnal Pendidikan Olahraga*, *5*(1), 119. https://doi.org/10.31602/rjpo.v5i1.7272

Pangestu, L. A., & Akhiruyanto, A. (2023). Pengaruh Motivasi Belajar Terhadap Tingkat Keberhasilan Belajar Siswa pada Pembelajaran PJOK di SMP N 4 Kajen. *Indonesian Journal for Physical Education and Sport*, *4*(1), 13–20. https://doi.org/10.15294/inapes.v4i1.62570

Pangkey, F. R., & Mahfud, I. (2020). Peningkatan Keterampilan Gerak Dasar Roll Belakang Pada Anak Sekolah Dasar. *Journal Of Physical Education*, *1*(1), 33–40. https://doi.org/10.33365/joupe.v1i1.183

Purwanto, D. D., & Suharjana, S. (2017). Pengembangan model pembelajaran pengenalan teknik dasar tenis meja untuk siswa SD kelas atas. *Jurnal Keolahragaan*, *5*(2), 133. https://doi.org/10.21831/jk.v5i2.6419

Sanjaya, M. D. (2022). Nilai-Nilai Pendidikan Dalam Novel Hanter Karya Syifauzzahra Dan Relevansinya Sebagai Pembelajaran Sastra Di Sma. *KREDO : Jurnal Ilmiah Bahasa Dan Sastra*, *5*(2), 475–496. https://doi.org/10.24176/kredo.v5i2.6778

Siti Rodi'ah, I. H. (2021). Strategi Pembelajaran Pendidikan Jasmani Berbantu Media Book Creator Digital Dalam Meningkatkan Kemampuan Motorik Kasar Siswa Pada Tingkat Sekolah Dasar. *Continuous Education: Journal of Science and Research*, *2*(2), 23–35. https://doi.org/10.51178/ce.v2i2.225

Syaputra, M. N., Kahri, M., Arifin, S., & -, M. (2023). Upaya meningkatkan kemampuan gerak dasar manipulatif (lempar tangkap) melalui model problem base learning. *Journal of SPORT (Sport, Physical Education, Organization, Recreation, and Training)*, *7*(2), 233–247. https://doi.org/10.37058/sport.v7i2.7708

Wahyudi, R. (2024). *Strategi Guru Dalam Mengembangkan Keterampilan Motorik Siswa Melalui Pendidikan Jasmani Di Sd It Bina Insan*. *7*, 17864–17868.