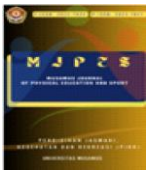
Musamus Journal of Physical Education and Sport (MJPES)
http://ejournal.unmus.ac.id/index.php/physical
Volume 8, No. 2, April 2026 , Pg. 1021-1028
DOI: 10.35724/mjpes.v8i2.8118



Improving Students' Soccer Passing Skills Through Varied Scientific Approach-Based Learning

Hubban Nabiel Matondang[1], Andi Nur Abady[2], Devi Catur Winata[3]
[1,2,3] Sekolah Tinggi Olahraga dan Kesehatan Bina Guna, Indonesia
Corresponding Author: devicaturwinatastokbinaguna@gmail.com

Abstract

This study aims to determine how to improve soccer passing learning outcomes through a scientific approach utilizing varied learning activities among Grade VIII students at SMP Swasta Karya Bakti during the 2025/2026 academic year. The research was conducted in August 2026. The subjects of this study were 32 students from class VIII-2 (17 males and 15 females), who were subjected to an intervention involving the scientific approach combined with varied learning activities. The method employed in this study was Classroom Action Research.

Regarding student learning outcomes in Cycle I, the initial assessment revealed that students' baseline ability to execute passing techniques was low. Out of the 32 students, 21 (65.62%) achieved mastery, while 11 (34.37%) did not. The average learning outcome score was 75.51; while this score met the individual Minimum Mastery Criteria (KKM), the class had not yet achieved collective (classical) mastery. In contrast, results from Cycle II showed an improvement in the students' performance during the assessment; 28 students (87.5%) achieved mastery, while the remaining 4 students (12.5%) did not. The average score reached 80.46.

Based on this, the data analysis indicates that employing a scientific approach combined with varied instructional methods can improve the passing skills of Grade VIII students at Karya Bakti Private Junior High School during the 2025/2026 academic year.

***Keywords**: Passing learning outcomes, scientific approach, varied learning activities.*

Introduction

Achieving effective learning outcomes requires several steps, one of which is establishing a system that fosters an environment conducive to learning. The success of the learning process depends on the extent to which each student actively participates—both cognitively and physically. Consequently, teachers are viewed as facilitators and drivers of their students' learning journeys, and they are expected to enhance learning outcomes.
A successful learning process impacts not only the students but also the teachers involved. To participate actively in the educational process at their respective schools,

Musamus Journal of Physical Education and Sport (MJPES)
http://ejournal.unmus.ac.id/index.php/physical
Volume 8, No. 2, April 2026 , Pg. 1021-1028
DOI: 10.35724/mjpes.v8i2.8118

both students and teachers must take on active roles. Teachers are expected to improve the classroom atmosphere and employ effective teaching strategies to boost student achievement. They also hope that, by utilizing more flexible approaches, they can introduce material to students at an earlier age.(Winata et al., 2026)

Participating in school physical education programs is crucial for helping children develop their intellectual, emotional, and motor skills. We strongly believe that developing these motor skills will benefit an individual's physical condition. Good physical health, in turn, supports the learning process across all subjects.(Survey et al., 2024)

Instruction cannot be separated from the physical education curriculum. Through physical education, students gain opportunities to acquire fundamental movement skills; this helps them develop attitudes and behaviors that promote a clean, healthy lifestyle and physical fitness. Physical education activities typically involve various forms of physical exercise—such as learning to pass a soccer ball—which require physical exertion. The methods or techniques employed during instruction are likely key factors contributing to a teacher's success in effectively conveying the material.(abdillah surya siregar, devi catur winata, n.d.)

The term "teaching method" refers to the approach a teacher chooses for interacting with students during the learning process to ensure effective mastery of instructional material. In the context of physical education, the success of learning activities can be assessed by the personal growth students experience while participating in them. Indicators of this success include the students' level of understanding, their mastery of the material, and their learning outcomes.(Agung nugroho, 2018)

The degree of learning success is directly linked to the extent of the students' knowledge, mastery of material, and learning outcomes. Through the teaching process, students are able to acquire, transform, and develop their knowledge, attitudes, and skills. Teaching is an activity—or a series of activities—that creates conditions to assist, stimulate, guide, direct, and encourage students, thereby facilitating the learning process. Consequently, teaching is not limited to the mere transmission of information from instructor to student; rather, it encompasses a broader scope, including the creation of a supportive relationship that guides, directs, and instructs students in their pursuit of knowledge.(r. erwin gabriel lumbanbatu, 2026)

The presence of the instructor—a central figure in the learning process—is inseparable from the actual implementation of that process. Factors falling into this category include teaching readiness, planning effectiveness, the teacher's knowledge and capabilities, the adequacy of facilities and infrastructure, curriculum-related variables, and elements associated with the teaching environment.(Zebua et al., 2025)

To achieve this goal, physical education teachers must be able to employ appropriate instructional strategies tailored to their students' developmental stages. Educators need a solid understanding that students are ready to learn and already possess prior knowledge of the material to be taught on a given day, and that they recognize the connection between current lessons and past instruction. Ensuring this understanding helps prevent students from facing unnecessary obstacles in their learning journey.(Winata et al., 2024)

However, a key question remains: is the information conveyed by the instructor actually understood by the students? Teachers guide students through a series of steps to ensure instructional content is truly absorbed. Students learn through how the teacher presents

Musamus Journal of Physical Education and Sport (MJPES)
http://ejournal.unmus.ac.id/index.php/physical
Volume 8, No. 2, April 2026 , Pg. 1021-1028
DOI: 10.35724/mjpes.v8i2.8118

material, assigns tasks, and interacts with the class. The author observed this dynamic at Karya Bakti Private Junior High School. Initially, not a single student could correctly execute a pass using the inside of the foot. During soccer instruction, many students attempted inside-of-the-foot passes with incorrect body posture and supporting-foot placement, resulting in inaccurate aim. Passing with the inside of the foot is a fundamental soccer skill. Indeed, passing is a crucial technique because precise passing allows players to control the flow of the game; this underscores the vital importance of the skill.(Agus A P & Catur, 2024)

Students showed diminishing interest in the learning process, a direct result of the teacher's lack of variety in instructional strategies. In the context of soccer instruction, a physical education teacher must be capable of guiding students toward mastering the sport—fostering a sense of freedom and direct engagement while maintaining instructor supervision. This stems from the fact that educators often fail to demonstrate sufficient ingenuity in boosting student motivation through effective teaching approaches. A physical education teacher can employ appropriate teaching techniques, models, and styles to help students fully develop their potential. Such measures enable students to express their creativity and independence while participating in activities centered on learning the game of soccer.

A challenge facing Karya Bakti Private Junior High School is its lack of adequate infrastructure or facilities for physical education and sports. For instance, the school does not have a soccer field; instead, its facilities are limited to a basketball court and a volleyball court. Nevertheless, the available equipment is sufficient, comprising a variety of items such as six soccer balls, five volleyballs, five basketballs, a shot put, a discus, and other gear.

Although the students had learned how to pass, the physical education instructor at this junior high school (SMP) had not provided optimal instruction regarding passing techniques—specifically, passing with the inside of the foot. Passing is a crucial aspect of soccer; using the inside of the foot facilitates the execution of more accurate and effective passes. To assess whether students had met the Minimum Mastery Criteria (KKM) for the inside-foot passing technique, the instructor allowed them to play a game of soccer without direct supervision. At Karya Bakti Private Junior High School, there were 32 students enrolled in class VIII-2. Only seven of these students—representing 21.87% of the total—had achieved learning mastery or scored above the KKM threshold. Twenty-five students—comprising 78.12% of the total—had not yet reached the point of mastering the material. Karya Bakti Private Junior High School has established a score of 75 on the KKM scale as the benchmark for its physical education curriculum.

Researchers concluded that the soccer instructional process was not being implemented effectively and that the observational findings indicated a need for improvement. Sports instructors must carefully consider several factors before deciding how to teach the material at hand. Selecting the appropriate instructional method is a challenging task. Certain decisions—determined at specific times to be the most effective—are applied to prevent the recurrence of previous issues. Fatigue and boredom are two common problems arising from the difficulties associated with selecting instructional methods. In education, the teacher's output is crucial.

To design new, more efficient, and successful guidelines, the diverse experiences of instructors were gathered and analyzed. The results of various trials served as the

Musamus Journal of Physical Education and Sport (MJPES)
http://ejournal.unmus.ac.id/index.php/physical
Volume 8, No. 2, April 2026 , Pg. 1021-1028
DOI: 10.35724/mjpes.v8i2.8118

foundation for this policy, which involves a procedure for content creation and evaluation. Alternatives include developing pedagogical aids, enhancing the quality of leadership among educators, and disseminating knowledge regarding technological advancements.

Teachers must demonstrate a high level of inventiveness to effectively support the teaching of the inside-foot passing technique. This is essential to ensure that the instructional process provides students with a comprehensive and high-quality learning experience. A problem arises because some physical education teachers fail to fully leverage their potential to meet curriculum demands and adapt to the learning needs of their students. Furthermore, some teachers struggle to act as creative educators when facilitating physical education lessons—particularly in soccer.

It is predicted that introducing the "scientific approach" teaching style—designed to enhance learning—will improve students' ability to correctly understand basic soccer tactics. With this information in mind, I am interested in conducting research titled "Efforts to Improve Soccer Passing Learning Outcomes Through a Scientific Approach Using Instructional Variations Among Grade VIII Students at Karya Bakti Private Junior High School in the 2025/2026 Academic Year." This will allow me to further investigate the potential for improving soccer learning outcomes for the eighth-grade students at Karya Bakti Private Junior High School.

Materials and Methods

Study Design

In line with the previously outlined research problem and objectives, this study aims to gather information on improving soccer passing learning outcomes among Grade VIII students at SMP Swasta Karya Bakti during the 2025/2026 academic year by employing a scientific approach combined with varied instructional methods. Consequently, this study utilizes Classroom Action Research (CAR). CAR involves the systematic observation of learning activities through actions intentionally introduced within the classroom setting; these actions are either administered directly by the teacher or carried out by students under the teacher's guidance.

Study Participants

Statistical Analysis

The subjects of this study were students from class VIII-2 at Karya Bakti Private Junior High School. The group consisted of 32 students: 17 boys and 15 girls. This class was selected because the soccer curriculum is taught at the VIII-2 level, and a significant number of students in this class had not yet mastered the skill of passing with the inside of the foot compared to students in other classes.

Musamus Journal of Physical Education and Sport (MJPES)
http://ejournal.unmus.ac.id/index.php/physical
Volume 8, No. 2, April 2026 , Pg. 1021-1028
DOI: 10.35724/mjpes.v8i2.8118

Research Instrument

The data analysis process involved several stages, including: Data Reduction. This process involved selecting, simplifying, and transforming data presented in field note transcripts. The aim of data reduction was to identify students' errors or shortcomings during the test and determine the necessary corrective actions. Data Presentation. In this stage, data obtained from student learning outcomes were presented in a table using a predetermined formula. To determine the percentage of student proficiency, the following formula was used:

KKM = (B / N) × 100%

Legend:

KKM : Minimum Mastery Criteria (Kriteria Ketuntasan Minimal)

B : Score obtained

N : Maximum score (12)

Criteria:

0 ≤ KKM < 75 : Student has not achieved mastery

75 ≤ KKM ≤ 100 : Student has achieved mastery

Based on the description above, it is possible to identify individual students who have and have not achieved learning mastery. Furthermore, class-wide mastery can be determined by calculating the percentage of students who have achieved mastery, using the following formula:

KKM = (Number of students with score ≥ 75) / (Total number of students)

Legend:

KKM = Minimum Mastery Criteria

According to the mastery criteria, class-wide mastery is achieved if 85% of the students in the class attain an assessment score of ≥ 75 (Suryosubroto, 2017:129).

The description above allows for the identification of individual students who have and have not achieved learning mastery. Furthermore, it is possible to determine whether class-wide learning mastery has been achieved by calculating the percentage of students who have successfully met the mastery criteria, using the following formula:

PKK = (T / N) × 100%

Where:

PKK = Percentage of class-wide mastery

T = Number of students with an assessment score (PPH) ≥ 75

N = Total number of students

Musamus Journal of Physical Education and Sport (MJPES)
http://ejournal.unmus.ac.id/index.php/physical
Volume 8, No. 2, April 2026 , Pg. 1021-1028
DOI: 10.35724/mjpes.v8i2.8118

Based on the learning mastery criteria, class-wide mastery is considered achieved if 85% of the students in the class attain an assessment score of ≥ 75 (Zainal Aqib, 2020:14).

RESULTS

This study was conducted at Karya Bakti Private Junior High School during the 2025/2026 academic year. Observation results revealed that out of 32 students, 7 achieved learning mastery, while 25 did not. This information serves as a preliminary basis for the researcher to address the problems and obstacles students face when learning the passing technique in soccer.

A description of the student observation results is presented in the table below.

No	Hasil belajar	Jumlah siswa	Indikator			Skor	Kriteria
			Sikap Badan	Posisi Kaki	Perkenaan		
1.	Siklus I	32	2,81	2,09	2,5	7,4	Baik
2.	Siklus II	32	2,81	1,87	2,90	7,58	Baik
Total Maksimal							

Following the intervention in Cycle I, students took the first learning outcome test; the results showed that 21 students achieved mastery, while 11 students failed to reach the expected level of mastery.

In Cycle I, the average score was 75.51, and the classical mastery rate was 65.62%, which did not meet the expected classical mastery criterion of 85%.

Subsequently, after the intervention in Cycle II, students took the second learning outcome test; the results showed that 28 students achieved mastery, while 4 students did not. In Cycle II, the average score was 80.6, and the classical mastery rate was 87.5%. This met the classical mastery criterion of ≥ 85%.

Based on the completeness of the learning results obtained in cycle I, it can be described that students who have not completed (34.37%) have errors in passing as follows.

1. It was found that when the foot touched, 58% of the students did not control the ball when passing. The position of the supporting foot was not strong when passing.
2. Most students when passing don't stretch their hands enough when their feet touch the ball, and students don't make the contact well
3. Requires sufficient practice to learn the inside leg passing technique in the game of soccer properly and correctly.

Discussion

Based on the data analysis, it can be concluded that a scientific approach, incorporating a variety of instructional methods, can improve students' learning outcomes in football passing. The initial assessment revealed low performance, which prompted the implementation of a scientific approach—utilizing diverse learning activities—to teach passing techniques. While the results from the first cycle (Cycle I) showed an improvement, they did not yet meet the established criteria for class-wide mastery (i.e., > 85%); consequently, further refinements were made in the second cycle (Cycle II).
During Cycle I, the researcher identified several challenges faced by students, including:

1. Not all students (34.37%) were able to execute football passes correctly.
2. Students struggled with the passing technique, particularly regarding the follow through phase.
3. A significant amount of time was required to properly master passing techniques.

Following the implementation of the scientific approach in Cycle I, the average score was 75.51, with a mastery rate of 65.62%. In Cycle II, there was a noticeable increase in student learning engagement compared to the previous cycle. The assessment in Cycle II yielded an average score of 80.46, with an overall improvement in class-wide mastery of 21.89% across the two cycles.
Mastery of technique is the key to success in any sport, and this holds true for passing. While a scientific approach can be an effective framework for delivering instructional content, its application must be carefully tailored to the specific subject matter, the needs of the students, and the availability of facilities and resources at the school.
Thus, it can be said that using a scientific approach can improve the learning outcomes of passing in the game of soccer, which were initially low and then increased. By applying a scientific approach it is more effective to obtain complete learning outcomes in passing in the game of soccer.

Acknowledgments

Based on the discussion in Chapter IV, it can be concluded that instruction using a scientific approach, combined with a variety of learning methods, improves the learning outcomes for the "passing" skill among eighth-grade students at SMP Swasta Karya Bakti for the 2025/2026 academic year.

1. In the initial data, out of the 32 students sampled for this study, only 7 students (21.87%) achieved mastery, while the remaining 25 students (78.12%) did not. The class average score was 53.35.
2. In Cycle I, out of the 32 students sampled, 21 students (65.62%) achieved mastery, while 11 students (34.37%) did not. The class average score was 75.51.
3. In Cycle II, out of the 32 students sampled, 28 students (87.5%) achieved mastery, while the remaining 4 students (12.5%) did not. The class average score reached 80.46.

Conflict of Interest

Thank you to the teachers, students, and principal of SMP Swasta Karya Bakti Tahun Ajaran 2025/2026.

References

abdillah surya siregar, devi catur winata, elisa hadinah. (n.d.). *The Effect Of Target Games On Shooting Skills In Futsal Games At The Private Vocational School Free Methodist 2 Medan*. *1385*(7), 126–134. https://doi.org/10.32529/bsej.v7i1.5072

Agung nugroho, devi catur winata. (2018). *UPAYA MENINGKATKAN HASIL BELAJAR SHOOTING PADA PERMAINAN SEPAK BOLA MELALUI PENDEKATAN BERMAIN PADA SISWA KELAS VII SMP NEGERI 7 ACEH TAMIANG*. *6*, 55–64.

Agus A P, & Catur, W. D. (2024). *PENGARUH LATIHAN TENDANGAN MENGGUNAKAN PUNGGUNG KAKI DAN KAKI BAGIAN DALAM TERHADAP SHOOTING SEPAK BOLA*. *05*(2), 73–79.

r. erwin gabriel lumbanbatu, devi catur winata. (2026). *THE EFFECT OF BALL FEELING TRAINING ON FOOTBALL DRIBBLING ABILITY IN ATHLETES AGED 13-15 YEARS AT PS POLLUNG FC HUMBANGAN HASUDUTAN*. *2026*(2), 244–250.

Survey, P. F., Students, F. U. K. M., Muhammadiyah, U., & Belitung, B. (2024). *An Empirical Survey on Basic Football Skills Among 10–13-Year-Old Athletes of Tanjung Balai United Football School*. *0862*(2022), 18–21.

Winata, D. C., Sari, L. P., & Ahmad, N. Y. (2026). *Enhancing Learning Self-Confidence through Traditional Game-Based Motor Activities among Children with Low Vision Disabilities*. *6*(3), 739–751. https://doi.org/https://doi.org/10.52188/ijpess.v6i3.2199

Winata, D. C., Suman, J., Manurung, R., & Hasan, M. I. Al. (2024). *PENGEMBANGAN MEDIA PEMBELAJARAN PADA TUNANETRA SEKOLAH LUARBIASA TANJUNG MORAWA TAHUN 2024*. *15*, 40–50.

Zebua, A. T., Gulo, A. F., & Hasan, M. I. Al. (2025). *Penerapan hasil belajar dribbling permainan sepak bola melalui variasi media audiovisual pada siswa kelas V SD Swasta Islam Terpadu Arisa*. *11*(2), 71–77.