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The Effectiveness of Football Learning in Improving Basic Technical Skills of Physical Education Students at Dahasen University, Bengkulu

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ABSTRACT

This study aims to analyse the effectiveness of soccer learning in improving the basic technical skills of Physical Education students at Dahasen University, Bengkulu. The research method used was quasi-experimental with a one-group pretest-posttest design. The study subjects were 30 students who participated in soccer learning for eight meetings. The data collection instrument was a basic technical skills test, including passing, dribbling, shooting, and ball control. Data was analysed using a paired sample t-test and effect size calculation (Cohen's d). After learning, the results showed a significant increase in all aspects of basic techniques ($p < 0.05$). The effect size values for all basic methods were included in the vast category (Cohen's $d > 2.00$), indicating that learning strongly impacted improving skills. These findings confirm that soccer learning based on drills and small-sided games effectively develops students' basic technical skills. This study recommends the application of a varied, practical, and applicable learning approach in teaching soccer in a physical education environment to produce technically and pedagogically competent graduates.

Keywords: football learning; basic technical skills; Physical Education; learning effectiveness; students

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INTRODUCTION

Football is among the most popular and sought-after sports in various circles at the national and international levels. In addition to being a competitive sport, football also plays a vital role in the development of motor skills (Agnew et al., 2019; Hasyim et al., 2023; Hussein & Saadalla, 2020), teamwork (Crossley et al., 2020; Sulistiyono et al., 2021), discipline (Li et al., 2020; Uebersax et al., 2020), and character building (Bishop et al., 2013; Hoare, 2020). n the educational environment, especially in the Physical Education (Penjas) study program, football learning is one of the primary materials that aims to equip students with the knowledge, basic technical skills, and tactical understanding needed in sports learning and training.

Football learning at the college level is not only aimed at improving playing skills but also as part of the process of forming professional physical educator candidates (Watson

et al., 2022). Therefore, the effectiveness of the learning method is an important factor in mastering basic techniques (Gunawan et al., 2023) such as passing, dribbling, shooting, and ball control. The application of an appropriate learning approach can help students understand the concept of movement (Deng, 2024; Paramitha et al., 2020), master skills gradually (Lembe et al., 2019), and apply basic techniques effectively in game situations (Wang & Chen, 2021; Zou, 2024).

However, in its implementation, there are still variations in student skill achievement, which can be influenced by various factors such as learning methods, learning media, learning motivation, and training intensity. Therefore, research on the effectiveness of football learning is relevant to be carried out in order to provide an empirical picture of the extent to which the learning process carried out can improve students' basic technical skills. This study focuses on Physical Education students at Dahasen University, Bengkulu, to evaluate the effectiveness of football learning implemented so far and to provide recommendations for developing a more optimal learning model. It is hoped that the results of this study can contribute to the development of curriculum and learning strategies for Physical Education at the tertiary level.

METHOD

Type and Research Design

This study uses a quantitative approach with a quasi-experimental design. This design was chosen because the researcher conducted an intervention in the form of soccer learning to a group of research subjects but did not randomly assign subjects. The research model used was a pretest-posttest one-group design, where basic soccer technique skills were measured before and after learning.

Research Subjects

The subjects in this study were students of the Physical Education study program at Dahasen University, Bengkulu, who were taking soccer courses. The number of samples was 30 students, selected by purposive sampling based on the following criteria: 1) Actively registered in the current semester; 2) Attending all soccer learning sessions; 3) Not experiencing injuries or physical disorders that could affect the ability to participate in training.

Research Instruments

The instruments used to measure basic soccer technique skills were: 1) Passing test (short passing accuracy test); 2) Dribbling test (dribble slalom test); 3) Shooting test (shooting accuracy test); 4) Ball control test (ball control with variations of short and medium-range passes); 5) Football coaching experts have validated all instruments and have high reliability.

Research Procedure

A pretest was conducted to measure the initial ability to use basic football techniques. The learning process was carried out for eight meetings (2 months), with a basic technique learning approach based on drills, small-sided games, and tactical approaches. The posttest was conducted after the entire learning program was completed. The pretest and posttest data were then compared to determine the increase in skills.

Data Analysis Technique

The pretest and posttest data were analyzed using a paired sample t-test to see significant differences between before and after treatment. Data processing was carried out with the help of the latest version of the SPSS statistical program. The level of significance used was 0.05.

RESULTS AND DISCUSSION

Results

This study aims to determine the effectiveness of soccer learning in improving the basic technical skills of Penjas students at Dahasen University, Bengkulu. Measurements were taken before (pretest) and after (posttest) learning, with test instruments including passing, dribbling, shooting, and ball control. Table 1 shows an increase in the average score for all basic technical skills after implementing soccer learning.

Table 1. Descriptive Statistics of Pretest and Posttest Results of Basic Football Technique Skills

Basic Techniques	Pretest (Mean ± SD)	Posttest (Mean ± SD)	Difference (Δ)
Passing	62.40 ± 6.20	76.20 ± 5.80	13.80
Dribbling	59.80 ± 5.90	72.40 ± 5.40	12.60
Shooting	61.10 ± 6.10	75.30 ± 5.50	14.20
Ball Control	60.70 ± 6.00	74.00 ± 5.70	13.30

Normality testing was performed using the Kolmogorov-Smirnov test. The test results showed that the data were normally distributed ($p > 0.05$), which could be continued with the parametric paired sample t-test. Based on the results of the paired sample t-test in Table 2, it is known that all basic techniques experienced a statistically significant increase ($p < 0.05$) after being given soccer learning.

Table 2. Paired Sample t-Test Results

Basic skills	t-count	Sig. (2-tailed)
Passing	14.512	0.000
Dribbling	13.248	0.000
Shooting	15.327	0.000
Ball Control	14.007	0.000

The Cohen's value calculation is used to determine the magnitude of the learning influence. Based on the calculation, soccer learning significantly improves students' basic technical skills. From the results of the study, soccer learning that is applied systematically, structured, and based on practice has proven effective in improving the basic technical skills of Penjas students at Dahasen University, Bengkulu. All aspects of basic techniques have increased significantly, with the magnitude of the influence included in the vast category.

Table 3. Effect Size Value (Cohen's d)

Basic skills	**Cohen's d**	**Categories**
Passing	2.22	Very large
Dribbling	2.13	Very large
Shooting	2.30	Very large
Ball Control	2.20	Very large

Discussion

Structured soccer learning can significantly improve basic technical skills (Bernhardin, 2023; Fernando & Alpen, 2023; Putra & Sepriadi, 2022). The study results showed a significant increase in Physical Education students with structured training at Dahasen University, Bengkulu. All aspects of basic skills, namely passing, dribbling, shooting, and ball control, experienced significant improvements after students participated in the soccer learning program. This increase is in line with the theory of motor skill learning, where the quality of training greatly influences mastery of basic sports techniques, frequency of repetition (Jia et al., 2021; Putra et al., 2020), and the learning approach used (Rahmalia & Ala, 2023; Siregar et al., 2022).

In this study, the learning approach combines drill methods, small-sided games, and match simulations, allowing students to develop skills gradually in conditions resembling real games. The drill method allows students to master technical movements correctly through intensive repetition. Meanwhile, small-sided games provide a simpler atmosphere for students to integrate basic techniques in dynamic situations. Several previous studies have also stated that small-sided games effectively improve players' technical and tactical skills (de Souza et al., 2024; Gonet et al., 2020; Perdima et al., 2024).

The paired sample t-test statistical test results showing a significance value of $p < 0.05$ in all aspects of basic techniques prove that the learning provided impacts students' mastery of basic technique skills. In addition, the tremendous effect size value (Cohen's d) (> 2.00) indicates that learning has a substantial influence, not just a coincidental difference. The success of this skill improvement is also inseparable from the characteristics of the research subjects, who are Physical Education students with relatively good basic physical abilities, high learning motivation, and readiness to receive sports learning materials. Conducive learning environment factors, field facilities, and the qualifications of lecturers in charge of the course also support the optimal learning process.

The results of this study strengthen previous findings that emphasize the importance of game-based learning and a hands-on approach in developing sports skills in physical education environments (Casau et al., 2023; Johnson & Kim, 2021; Karisman, 2023). Thus, systematically designed soccer learning, incorporating motor learning theory, and adapting to student characteristics can be an effective learning model in developing basic soccer technique competencies for Physical Education students.

CONCLUSION

Based on the results of the research that has been conducted, it can be concluded that soccer learning that is implemented in a structured and systematic manner is effective in improving the basic technical skills of Physical Education students at Dahasen University, Bengkulu. All aspects of basic technical skills measured, including passing, dribbling, shooting, and ball control, experienced a statistically significant increase after participating in the learning program.

This significant increase shows that the learning model that combines drill methods, small-sided games, and real-game approaches can reinforce mastery of basic techniques. In addition, factors such as learning environment support, student motivation, and teaching quality also contribute to the success of learning.

The results of this study provide practical implications that the development of soccer learning models in the Physical Education study program environment needs to continue to be directed at active and applicative learning approaches, which emphasize

aspects of technical mastery and application in game situations. Thus, Physical Education graduates can have more optimal skills as players, coaches, and sports educators in the future.

CONFLICT OF INTEREST

The author declares that there is no conflict of interest from any party and funder in conducting this research that could affect the results and objectivity of the study.

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