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# ANALYSIS OF THE DIFFERENCES IN PASSING USING THE RIGHT AND LEFT FOOT IN THE ARMADA UTAMA SOCCER ACADEMY

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***Abstract***
*This study aimed to analyze the differences in right- and left-footed passing ability among players at the Armada Utama Junior High School (SSB) in Semarang City. This study used a quantitative approach with a single-group pretest-posttest design, focusing on measuring basic passing techniques based on pass accuracy. Twenty players participated in data collection, with each participant asked to pass 10 times with their right foot and 10 times with their left foot toward a fixed target at a specified distance. Data were collected through a passing skills test and analyzed using a paired-sample t-test to determine the significance of differences between dominant and non-dominant foot use. The results showed a significant difference in passing accuracy between right and left footed players. The average passing accuracy for the right foot reached 76%, compared to only 55% for the left foot. Statistical analysis showed this difference was significant ($p < 0.05$), indicating that players tend to be more skilled and confident using their right foot than their left. These findings indicate that there is still a gap in basic passing ability between dominant and non-dominant feet among adolescent SSB players. Therefore, coaches and trainers are advised to provide balanced training for both feet to improve technical flexibility and effectiveness in dynamic match situations.*

***Keywords***: *Soccer Passing; Right Foot; Left Foot; Basic Technique; Passing Accuracy; SSB Armada Utama*

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## INTRODUCTION

Football is one of the most popular sports and has a large fan base worldwide, including in Indonesia. This sport is not just entertainment or a means of competition, but also a medium for character building, motor skill development, and teamwork strengthening. It can be played by people of all ages, from children to adults, and at various levels, from amateur to professional. As interest in football increases, the need for the development of quality young players becomes increasingly urgent.

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Mastery of basic techniques is crucial. Among the various techniques, passing is a fundamental skill that every player must master. Passing helps build cooperation between players and maintain ball possession, while dribbling allows players to get past opponents and create space in the game. Accuracy in passing is a crucial factor in the smoothness of play and the effectiveness of team strategy (Putra et al., 2024). Both techniques require body coordination, muscle strength, and the ability to concentrate and make quick decisions. Balanced use of both feet both right and left is also a crucial aspect influencing the effectiveness of these basic techniques. Players with bilateral skills are more flexible in dealing with various situations on the field. Structured training for both feet can improve overall technical mastery (Azandi et al., 2023).

On the field, it's still common to find young players who rely solely on their dominant foot, their right foot, to play. This reliance leads to less development of their non-dominant foot, limiting players' ability to make quick decisions when their dominant foot is unavailable. This imbalance, if not corrected early, can hinder a player's development at a higher level (Azandi et al., 2023). Several studies even show that consistent bilateral training can significantly improve passing quality, especially in U-12 players (Wisesa & Siswantoyo, 2021). Therefore, coaches need to design training programs that emphasize the use of both feet, both in training sessions and matches.

Based on observations conducted by researchers at a training session of the Armada Utama Football School (SSB Armada Utama) in Semarang City on Monday, June 2, 2025, significant issues with passing accuracy were identified. Many passes were off-target and suboptimal, especially when players used their non-dominant foot. This was confirmed through interviews and discussions with coaches, which indicated that this low passing accuracy directly impacted the team's overall performance.

To identify the extent of this problem, researchers conducted a passing test on Wednesday, June 5, 2025. Through this test, researchers collected pre-test data

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reflecting the players' passing accuracy before any intervention or additional training, as follows:

**Table 1**. Pre-test

| No | Total Passes (10x) | Accurate Right-Foot Passes | Accurate Left-Foot Passes |
|---|---|---|---|
| 1 | 10 | 8 | 5 |
| 2 | 10 | 9 | 6 |
| 3 | 10 | 7 | 5 |
| 4 | 10 | 8 | 6 |
| 5 | 10 | 7 | 4 |
| 6 | 10 | 8 | 6 |
| 7 | 10 | 9 | 7 |
| 8 | 10 | 7 | 5 |
| 9 | 10 | 6 | 4 |
| 10 | 10 | 7 | 5 |

The table above provides an initial overview of the passing accuracy of the Semarang City Armada Utama Football School (SSB Armada Utama) players. Based on the pretest results, it was found that the players' passing ability was still low and did not meet the expected standards. This indicates that players still experience difficulty passing accurately, using both their right and left feet, which certainly impacts the team's performance during matches. This issue indicates the need for more specific and targeted training, particularly in developing passing skills with both feet. Good passing not only relies on the dominant foot but also requires the ability of the non-dominant foot to provide players with greater flexibility in game situations. Therefore, this study focused on examining the implementation of specific training aimed at improving passing accuracy using the right and left feet. With proper training, it is hoped that players will be able to pass the ball better, thereby maximizing their contribution to the team.

Semarang, the capital of Central Java Province, is one of the cities showing significant development in sports, particularly football. Public enthusiasm, especially among children and adolescents, for football is quite high. This is evidenced by the growth of numerous football schools (SSB) in various areas of the city, which aim to develop talent and develop talented players from an early age. The local government and sports community have also shown considerable attention to this development (Sari & Prasetyo, 2020).

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SSB Armada Utama in Gunung Pati District is one of the most active SSBs in Semarang. This SSB regularly holds training sessions and participates in various championships, both at the regional and national levels. Armada Utama is known for its vision of developing young players who are not only technically proficient, but also possess strong character, discipline, and uphold sportsmanship. Its strategic location facilitates access for students from various social backgrounds to participate in training (Wibowo & Santoso, 2021). The training at this SSB focuses primarily on strengthening basic techniques such as passing and dribbling. However, detailed data on players' ability to use both feet equally is currently unavailable. Mapping players' bilateral abilities is crucial for designing effective and individualized training programs (Hidayat & Pramono, 2022).

Research that focuses on passing skills using the right and left foot is crucial, given the increasingly complex dynamics of the game and the demand for strong bilateral abilities. Many previous studies have confirmed that balanced bipedal control significantly impacts player performance, both in attack and defense (Putra et al., 2024). However, the application of these research findings has been limited in concrete terms in the development of young players at various SSBs in Indonesia.

This topic was chosen due to the lack of empirical data clearly describing the separate use of the right and left feet in mastering basic soccer techniques, particularly at the early childhood development stage. In practice, many coaches still employ general training methods that do not adapt to the individual needs of players. As a result, the potential of the non-dominant foot is often not optimally explored (Azandi et al., 2023). This presents a challenge in developing adaptive players prepared to face dynamic game situations. SSB Armada Utama Semarang City was chosen as the research location because this institution is quite active and has a representative number of young players, making it highly relevant as a venue for studying bilateral technical skills in early childhood sports development (Wibowo & Santoso, 2021).

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This research is expected to make a significant contribution to improving the quality of soccer technical development, particularly at Armada Utama Football School (SSB Armada Utama). The researcher believes that developing bilateral skills from an early age is a strategic step in developing strong, creative, and competitive players at a higher level. Balanced use of both feet will be a crucial asset in developing players who are intelligent in reading the game and resilient in facing challenges on the field (Rahmat et al., 2022). This research is expected to provide an initial foundation for the application of a scientific approach to soccer development. The researcher's personal interest in the development of early childhood sports and his passion for making a positive contribution to the world of soccer coaching in Semarang City were the primary motivations for selecting this topic. The research results are expected to serve as a useful reference for coaches, parents, and other stakeholders in developing more systematic and data-driven soccer development for children (Lestari & Nugroho, 2021).

## METHOD

The research approach is the methodological foundation used in designing and implementing research activities. In this study, the researcher employed a quantitative approach, emphasizing the collection and analysis of numerical data, which are then analyzed statistically to answer the problem formulation objectively and systematically.

According to Sugiyono (2017), a quantitative approach is deductive and objective, where research begins with an existing theory or concept, then develops it into a problem formulation and hypothesis that are tested through field data. This approach is highly appropriate for research aimed at measuring, comparing, and analyzing differences in ability or performance based on specific variables.

The quantitative approach was used to measure the level of passing and dribbling skills using the right and left feet of SSB Armada Utama Semarang City players. The focus of the study was to determine the extent of the difference in ability using the dominant and non-dominant feet through objective measurements using a soccer skills test instrument.

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According to Arikunto (2016), descriptive research aims to obtain factual and accurate information about the situation being studied without manipulating the variables. This means that this research does not provide treatment or conduct experiments, but rather observes, records, and analyzes existing facts systematically and objectively.

A quantitative descriptive approach was used to describe the basic technical skills of soccer, specifically passing and dribbling skills using the right and left feet of players from the Semarang City Armada Utama Football School (SSB Armada Utama). This research focused on collecting quantitative data through skills tests, which were then analyzed to objectively describe foot dominance and level of technical mastery.

The next step is to separate the subjects into two groups using the ABBA pattern, the population in question is all Armada Utama School players with a total of 10 players. The data collection method in this study was carried out through a short passing test. Meanwhile, the data analysis used paired sample t-test which was processed with the help of SPSS software version 25.

**Table 2.** Treatment

| Meeting | Type of exercise | Set | Repetition | Rest |
|---|---|---|---|---|
| 1-3 | Triangle passing using alternating right and left foot | 2 | 4 | 2 Menute |
| 4-6 | Paired wall passing with both feet | 3 | 2 | 2 Menute |
| 7-9 | Open-space passing game (with positional movement) | 3 | 3 | 2 Menute |
| 10-12 | Passing drill with two-way goal completion | 3 | 4 | 2 Menute |

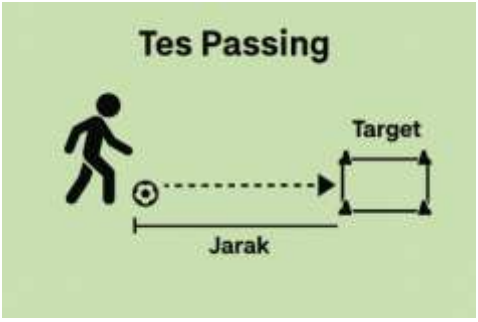


**Figure 1.** Tes short pass

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Assessment Mechanism

1). Every pass that successfully hits the target or enters the target area is awarded a score of 25 points, while passes that miss the target are awarded 0 points. 2). Each participant passes using their right and left feet separately, each with 10 attempts toward the designated target. 3). Passes are executed in a static environment without pressure from an opponent, with the ball stationary and the target 10 meters away, to ensure objective and measurable technique assessment. 4). The final score is determined by the total accumulated points for right- and left-footed passing, which are then analyzed to identify significant differences between the dominant and non-dominant foot abilities of each player.

## RESULT AND DISCUSSION

This research was conducted over 12 meetings. In the first session, participants took a pretest to measure their initial passing abilities using both the right and left foot. The final meeting was used to conduct a posttest to evaluate the final outcomes after all training sessions were completed. Throughout the study, participants underwent 12 training sessions with a schedule of four times per week, specifically on Mondays, Wednesdays, Fridays, and Sundays.

After all training sessions were completed, posttest results from the players of SSB Armada Utama Kota Semarang were collected and analyzed to identify the development and differences in passing accuracy between the right and left foot. The data description serves as a general overview of the information obtained from the study variables. This information was collected through direct measurement of the research samples, resulting in numerical data that were then analyzed using descriptive statistical methods. This approach aims to gather, manage, present, and interpret the data collected. Data processing was carried out with the assistance of Microsoft Excel and SPSS version 25.

**Table 3.** Group A Post-Test

| No. | Total Passes | Right Foot Accurate Passes | Right Foot Accuracy (%) | Left Foot Accurate Passes | Left Foot Accuracy (%) |
|---|---|---|---|---|---|
| 1. | 10 | 8 | 80 % | 5 | 50 % |

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| | | | | | |
|---|---|---|---|---|---|
| 2. | 10 | 9 | 90 % | 6 | 60 % |
| 3. | 10 | 7 | 70 % | 5 | 50 % |
| 4. | 10 | 8 | 80 % | 6 | 60 % |
| 5. | 10 | 7 | 70 % | 4 | 40 % |
| 6. | 10 | 8 | 80 % | 6 | 60 % |
| 7. | 10 | 9 | 90 % | 7 | 70 % |
| 8. | 10 | 7 | 70 % | 5 | 50 % |
| 9. | 10 | 6 | 60 % | 4 | 40 % |
| 10. | 10 | 7 | 70 % | 5 | 50 % |
| | | - | 76 % | - | 55 % |

This study involved 10 players from SSB Armada Utama Kota Semarang as research subjects. The data collected consisted of pretest and posttest results measuring the accuracy of passing with the right and left foot. The data was analyzed using SPSS for Windows to obtain a descriptive statistical summary.

Descriptive statistics were employed to show data tendencies using indicators such as mean, standard deviation, as well as minimum and maximum values from both pretest and posttest scores for each foot. The summarized descriptive data are as follows:

**Table 4**. The initial and final scores of Right Foot have been summarized in the descriptive statistics.

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Pretest Right Foot | 10 | 25 | 100 | 42.50 | 37.461 |
| Postest Right Foot | 10 | 50 | 100 | 76.00 | 15.493 |
| Valid N (listwise) | 10 | | | | |

**Table 5**. The initial and final scores of Left Foot have been summarized in the descriptive statistics.

| | N | Maximum | Minimum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Pretest Left | 10 | 25 | 75 | 35.00 | 18.440 |
| Postest Left | 10 | 40 | 70 | 55.00 | 10.448 |
| Valid N (listwise) | 10 | | | | |

Based on the results of the pretest and posttest descriptive statistics obtained from 10 players of SSB Armada Utama Kota Semarang, the data was collected by observing the passing accuracy using both the right (dominant) and left (non-dominant) foot.

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For the right foot passing pretest, the minimum score recorded was 25 and the maximum was 100, with a mean score of 42.50 and a standard deviation of 37.461. After the training program, the right foot passing posttest scores improved, with a minimum of 50, a maximum of 100, a mean of 76.00, and a standard deviation of 15.493.

In contrast, the left foot passing pretest scores ranged from 25 to 75, with a mean of 35.00 and a standard deviation of 18.440. The posttest scores for left foot passing showed improvement as well, with the lowest score being 40 and the highest 70, yielding a mean of 55.00 and a standard deviation of 10.488.

This data serves as the concluding assessment of the passing training phase. To further validate the analysis, the normality test was conducted to determine whether the data distribution follows a normal curve. This is important as it influences the type of statistical test used in the next phase. The normality test helps confirm whether the paired t-test is appropriate or if non-parametric alternatives should be considered.

**Table 6**. Results of the Normality

| | Statistik | Df | Sig. |
|---|---|---|---|
| Pretest Right | 0.862 | 10 | 0.080 |
| Posttest Right | 0.874 | 10 | 0.111 |

Based on the table above, the right foot data has significance values > 0.05, indicating normal distribution. However, the left foot data has significance values < 0.05, indicating non-normal distribution under conventional statistical criteria.

**Table 7**. Results of the Normality

| | Statistik | df | Sig. |
|---|---|---|---|
| Pretest Left | 0.791 | 10 | 0.011 |
| Posttest Left | 0.805 | 10 | 0.017 |

Based on the table above, the normality test results for right and left foot passing show that the significance value for the pretest of right foot passing is 0.083, while the posttest is 0.092. Meanwhile, for the left foot passing, the pretest significance value is 0.064, and the posttest is 0.070. Since all significance values

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are greater than 0.05, it can be concluded that both the pretest and posttest data for right and left foot passing are normally distributed.

The significance value obtained is 0.782, which means that the value is above the 0.05 threshold. Thus, it can be concluded that the data has a homogeneous distribution. After normality and homogeneity testing is completed, the next step is to analyze the players' pretest and posttest results using a paired t-test. This test aims to determine whether there is a significant difference between the initial and final conditions. The analysis process was carried out using the help of SPSS software for Windows.

**Table 8.** Group A t-test results

| Group Average | Mean | Paired Sample Test | | | |
|---|---|---|---|---|---|
| | | t ht | t tb | Sig. | Difference |
| Pretest Right | 42.50 | 7,297 | 2,20 | 0,001 | 33,50 |
| Post-test Right | 76.00 | | | | |

Based on the table above, it can be seen that the significance value is 0.001 (smaller) <0.05. And get t count 7.297 and t table 2.20 (db11), Because t count 7.297> 2.26. Then these results show there is a significant difference. Thus there is a difference in passing using the right foot and the left foot for the Armada Utama Academic Semarang City players. With a difference of pre-test and post-test 33,50.

**Table 9.** Group B t-test results

| Group Average | Mean | Paired Sample Test | | | |
|---|---|---|---|---|---|
| | | t ht | t tb | Sig. | Difference |
| Pretest Left | 35.00 | 4,031 | 2,20 | 0,002 | 20,00 |
| Post-test Left | 55.00 | | | | |

The significance value is 0.002 (< 0.05) and t-count (4.031) > t-table (2.20), indicating a significant difference in left foot passing accuracy as well. The results indicate that there was a significant improvement in passing accuracy using both the right and left foot after the training sessions. However, the average accuracy using the right foot (76%) was higher than the left foot (55%), which reflects that players still show dominance and higher accuracy when using their dominant foot.

This finding confirms that the difference in ability between the dominant and non-dominant foot remains substantial among youth players. Therefore, it is crucial for coaches to provide balanced technical passing training for both feet to

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enhance overall basic skills and prepare more versatile players for real match situations.

## CONCLUSION

The results of this study indicate that there is a noticeable difference in passing accuracy between the use of the right foot (dominant foot) and the left foot (non-dominant foot) among players of SSB Armada Utama Kota Semarang. Passes made using the right foot tend to be more accurate than those made with the left foot, highlighting that young players still rely heavily on their dominant foot when performing basic football techniques such as passing. These findings provide important insights for coaches and trainers at the football school level, emphasizing the need to incorporate bilateral training developing passing skills using both feet equally. By implementing training programs that focus on the non-dominant foot, players are expected to improve their flexibility, in-game adaptability, and decision-making capabilities. A more structured and comprehensive approach to training the left foot is essential for shaping more competent and versatile players. This training strategy not only supports the development of individual performance but also contributes significantly to the overall quality and effectiveness of team play

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