The effect of a goalkeeper's quiet eye training and without goalkeeper training against the accuracy of kicks on goal

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Abstract

Based on the facts on the ground, one of the causes of the less-than-optimal achievements achieved is caused by the lack of accuracy of the player's kick to the opponent's goal. This study aims to analyze the differences in the effect of training using the goalkeeper's quiet eye and training using the quiet eye without the goalkeeper on the accuracy of kicks on the goal. This research is quantitative research with quasi-experimental methods. This research was conducted at the Tuanku Tambusai stadium, the population of PSBS Kampar, Riau Province, with a sample of 28 soccer players obtained using purposive sampling. The research instrument used to measure the accuracy of kicks to goal in this study is Loughborough Soccer Shooting (LSST). The data analysis technique used the T-test at a significance level ($\alpha$) 0.05. The study showed a significant difference between the goalkeeper's quiet eye training method and the quiet eye without the goalkeeper on shooting accuracy in PSBS Kampar. The T-test results in the experimental group obtained a $T$ count = 4.224 > $T$ table = 2.021 and a sig. (2-tailed) = 0.000 < 0.05, that the training quiet eye increases the accuracy of shooting results.

Keywords: Quiet eye training, accuracy, goalkeeper, football.


Authors contribution: a – Preparing concepts; b – Formulating methods; c – Conducting research; d – Processing results; e – Interpretation and conclusions; f - Editing the final version

INTRODUCTION

Football is the most popular team game in Indonesia and the world and has even become a national game for every country in Europe, South America, Asia, and Africa even at this point, the game is popular in the United States (Priya Pratama et al., 2018). Football is a complicated sport and requires basic techniques of technique, power, physical performance, and insight into the pattern of play. Football is a game of dexterity that is fun for children who like to play football, home yards or streets are made
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as a match arena, a fence is made as a field boundary aside, and the clothes are removed and stacked as the net (Aprianova & Hariadi, 2016). The results of the accuracy of kicks on goal from the PSBS Kampar, Riau Province. Football Association from 28 players, almost 60% had fairly good kick accuracy, 40% were in very good and good criteria, and no one had poor or very poor results.

The study results (Raharjo, 2018) show that the kick target media used to train shooting accuracies of football players is good/decent. The results obtained from the validation of football coaches showed a percentage of 82.12%. The result of small group trials earned a percentage of 83.25%. Moreover, the result from large group trials reached a percentage of 81.18%. Thus, the kick target media has been declared as a media of coaching to help train shooting players' accuracy. The research aims to produce media that can train shooting players accurately, making it easier to train and improve shooting accuracy in training sessions.

In football, many factors affect a person's soccer skills, such as physical condition, technique, tactics, and mentality. Sport is a form of physical activity in games, competitions, and intensive activities to obtain the relevance of victory and optimal performance.

Football is a team sport carried out by kicking the ball to and fro players with goal goals and aiming to put the ball into the opponent's goal. In football, it is necessary to master the basic techniques of the game so that a player can play this sport. Football technique is one of the foundations for being able to play soccer or action needed for someone to be able to play soccer. The action or technique is kicking the ball (shooting), holding the ball or controlling the ball, dribbling, heading the ball, and throwing the ball.

James, C. A. P., & Kevin, B (2017). Kicking is an important skill in soccer, and kicking with great accuracy is needed to score goals (shooting), give to team members, and clear the ball when releasing defensive pressure. Quiet eye technique is the main thing that a player
must master, and from an attack point of view, the goal of football is to do it shooting to the goal. There is a clear difference in influence between high and low coordination to increase kicking ability in soccer games (Dwi et al., 2016). A quiet eye can increase the task's difficulty as it performs kick on target. Quiet is not just a byproduct of performance. Rather it is a driver in improving performance (Andre et al., 2017). Exercise quiet eye in football aims to increase one's concentration when kicking a ball where a soccer player can control visual attention (the player's eyes are not going anywhere / directing or focusing on the point of view of the intended object and target) in other words, the calm eyes of the player focus on the target or target. The quiet eye is a final fixation or tracking gaze towards a relevant target before a critical phase of the goal-directed movement.

Based on the description above, that quiet eye improves concentration and improves the accuracy of kicking the ball. In addition, a quiet eye reduces athletes' difficulty and anxiety when taking action while playing. Vine, S. J., & Klostermann (2016) the goal of calm eye training is to focus the athlete's actions in competition. The purpose of the quiet eye exercise is to help athletes with skill deficiencies in carrying out actions on the field during competition and control every action they want to do when competing. So aim for quiet eye exercises to encourage and improve skills and develop the athletes' mentality in performing an action while playing.

Marzuki., & Pamuji, S. (2018) Exercise quiet eye in football aims to increase one's concentration when kicking a ball where a soccer player can control visual attention (the player's eyes are not going anywhere / directing or focusing on the point of view of the intended object and target) in other words, the calm eyes of the player focus on the target or target. The quiet eye is a final fixation or tracking gaze toward a relevant target before a critical phase of the goal-directed movement (Emmanuel D. et al., 2017). Further explained, the quiet eye is formally defined as the final fixation or tracking gaze located at a specific location or object in the task space in degrees of viewing angle (Joan et al., et al. 2017). Further, a quieter eye is used to support task performance and promote efficient
overall movement preparation and movement function. It is a good index of task proficiency and expertise in various targeting and interception tasks (Lebeau et al., 2016). Use of training quiet eye in general with reduced performance under stress and designed to maintain or enhance eye composure to protect against impaired performance under pressure in skilled players, e.g., in golf, shotgun shooting, and penalty football (Lebeau et al., 2016).

The reason for soccer's appeal lies in its naturalness the game. Football is a challenging game, physically and mentally. It would help if you made skillful moves under limited time, in physical and mental game conditions, tired, and while facing opponents (Iskandar & Pradana, 2017). Football consists of four main elements: technique, tactics, physics, and mental. To play this sport, skills are needed. Basic skills include dribbling skills, feeding (pass), stopping the ball (stopping), heading the ball (heading), and shooting (shooting) (Widodo, 2018). Doing soccer requires some technique to master the game well (Nurwiyandi, 2019).

Shooting is one of the individual football skills to put the ball into the opponent's goal to win the game (Rajidin, 2014). Next, the accuracy in kicking determines quality shooting, namely the accuracy of the ball toward the goal (Pahala et al., Y. B, 2018). The same study stated that the main factor for decreased quality shooting is that players tend to be unstable using the back of their feet. The results show that the kick target media used to train shooting accuracies of football players is good/decent. The results obtained from the validation of football coaches showed a percentage of 82.12%. The result of small group trials earned a percentage of 83.25%. Moreover, the result from large group trials reached a percentage of 81.18%.

Furthermore, the accuracy of one's kick is influenced by various factors, including; footstool, core stability, leg muscle strength, flexibility, muscle endurance, neuromuscular coordination, balance, and concentration and focus on targets (Septo, M. R, 2018). From an attacking point of view, football aims to shoot at the goal. The goal of football is to
shoot at the goal. A player must master the basic skills kicked the ball and then develop a series of techniques for shooting which allows him to perform shooting kicks and score goals from various positions on the field (Fajar, 2020).

The results of the accuracy of kicks on goal from the PSBS Kampar, Riau Province. Football Association from 28 players, almost 60% had fairly good kick accuracy, 40% were in very good and good criteria, and no one had poor or very poor results. In football, many factors affect a person's soccer skills, such as physical condition, technique, tactics, and mentality. The achievements and data obtained in the field show that the PSBS Kampar, Riau Province football game looks good and does not disappoint. However, of the many influencing factors, to get optimal results, these factors must be in line to produce brilliant achievements in the sense that they can maintain good achievements. Previously achieved. Through an interview on December 22, 2022, he confirmed that when shooting at the opponent's goal, many distractions come from both within and outside the athlete, so concentration decreases when kicking. Furthermore, nervousness, not concentrating, body lethargy, and body feeling stiff and excessive tension during the match, resulting in coordination and impact foot with the ball incorrectly, resulting in an inaccurate kick.

Based on the facts on the field, one of the causes of the less-than-optimal performance achieved was the inaccuracy of the kick at the opponent's goal when taking the shot at the goal, and this is what is experienced by football players of Riau Province At the time of conducting regional matches where at the time of the match On the other hand, the forwards/attackers stated that before facing the game that night, the players had trouble sleeping because they thought about tomorrow's match. During matches, the legs feel heavy, the body feels stiff, it is not accurate in anticipating the ball, it experiences cramps, it is unnaturally tense, and the heart is pounding, resulting in poor accuracy when kicking at goal or passing the ball to teammates.
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Research results (Greg et al., 2017) exercise quiet eye used for fake kicks with the goalkeeper and without using the goalkeeper where the result shows increased training quiet eye required when using deceptive kicks, where the soccer player maintains accuracy by tacitly processing information related to the goalkeeper's location. The study's overall results (Joan et al., 2017) show that the training technique of quiet eye can be taught effectively to large group players and benefit target shooting accuracy. Furthermore (Joe et al., 2014) this research demonstrates the effectiveness of the Exercisequiet eye to improve the effectiveness and efficiency of skills in the game and mediate the negative effects of anxiety or stress on game skills.

METHOD

This research is quantitative research with quasi-experimental methods. The research uses experimental methods to determine whether a treatment (intervention) is affected by testing the effect of one or more variables on other variables and the hypothesis of a causal relationship. Experimental research is used to find the influence of certain behaviors on others under controlled conditions. Sampling using purposive sampling with a sample of 28 people.

The research instrument used to measure the accuracy of kicks to goal in this study is Loughborough Soccer Shooting (LSST). The research design is a two-factor design. Two-factor design which can be called 2X2. Before the treatment is carried out, first in this study begins with a pretest. This pretest aims to obtain initial data about accuracy kicks on goals owned by football players after the pretest was given treatment (treatment) quiet eye exercise. The population that PSBS (Persatuan Sepak bola Bangkinang Sekitar) Kampar used in Riau Province.

Data were collected from the results of the pretest and post-test in the analysis using statistical normality test and t-test with steps first calculation Test normality using Liliefors. Test Normality aims to determine whether the data obtained is normally distributed. To see the effect of independent and dependent variables, used sample dependent t-test. Test
T (T-Test) The hypothesis is accepted if the significance test value is less than a (sig < 0.05). When the significance count is greater than a (sig > 0.05), the hypothesis is rejected.

RESULT
Calculation of normality aims from samples that are normally distributed. So before the action is taken, the normality test is carried out first using the Kolmogorov-Smirnov test and the Shapiro-Wilk test using SPSS series 20. The rule used to determine whether a distribution is normal is if Sig > 0.05 (5%), then the distribution is said to be normal, and if Sig < 0.05 (5%), the distribution is said to be abnormal. So that it can be seen in the SPSS table below, where the Kolmogorov-Smirnov sig = 0.130 > 0.05 is normal, moreover, on Shapiro-Wilk sig = 0.056 > 0.05, it can be said to be normal. So the conclusion is that the silent eye goalkeeper data is normally distributed. Moreover, where is the Kolmogorov-Smirnov sig = 0.177 > 0.05, it can be said to be normal, and on Shapiro-Wilk sig = 0.078 > 0.05, it can be said to be normal.

<table>
<thead>
<tr>
<th>Shooting Accuracy</th>
<th>Kolmogorov-Smirnov</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Quiet eye guardian goal</td>
<td>0.147</td>
<td>28</td>
</tr>
<tr>
<td>Quiet eye without a goalkeeper</td>
<td>0.138</td>
<td>28</td>
</tr>
</tbody>
</table>

a. Lilliefors Significance Correction

A homogeneity test was carried out to find out that the two groups were not different. The homogeneity test is useful for testing sample similarity, namely uniformity or not, the sample variant used to determine whether a test is homogeneous is if sig > 0.05 and F Levene statistics < F table is declared homogeneous. Moreover, the test table is not homogeneous if sig < 0.05 and F Levene > F. From Table 2, the SPSS results from it say that Sig 0.235 > 0.05 and F Levene = 1.445 < 4.02, so it can be concluded that the data is homogeneous.
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### Table 2. Homogeneity Test

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.445</td>
<td>1</td>
<td>54</td>
<td>0.235</td>
</tr>
</tbody>
</table>

The T-test results from Table 3 in the experimental group obtained a T count = 4.224 > T table = 2.021 and a sig. (2-tailed) = 0.000 < 0.05. This shows that H0 is rejected and Ha is accepted, and there is an effect on shooting accuracy. So it can be concluded that there are differences between the goalkeeper's quiet eye training method and quiet eye without the goalkeeper on the shooting accuracy of PSBS Kampar.

### Table 3. Hypothesis Test Table (T-test)

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal variances assumed</td>
<td>Equal variances are not assumed.</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>1.445</td>
<td>0.235</td>
<td>4.224</td>
</tr>
<tr>
<td>4.224</td>
<td>50.936</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**DISCUSSION**

This study uses exercises in the quiet eye, where this exercise is divided into two forms, namely training quiet eye using a goalkeeper and without a goalkeeper, where training quiet eye is modified by using the target instead of the goalkeeper and without the goalkeeper in the exercise. The difference shows on training quiet eye using goalkeepers at low eye-foot coordination and low anxiety levels where the average obtained is 967.54, with the training method quiet eye without using a goalkeeper at low eye-foot coordination and low anxiety level has an average of 772.70. The T-test results in the experimental group obtained a T count = 4.224 > T table = 2.021 and a sig. (2-tailed) = 0.000 < 0.05. This shows that H0 is rejected and Ha is accepted, and there is an effect on shooting accuracy. So it can be concluded that there are differences
between the goalkeeper’s quiet eye training method and quiet eye without the goalkeeper on the shooting accuracy of PSBS Kampar Riau Province.

The quiet eye is the last fixation (focus) before initiating the final movement toward the Vickers target (Lennart, F. et al., 2015). This training encourages athletes to exercise regularly, consisting of a systematic sequence of optimal gaze behavior so that it can be used before, during, and after to hone skills in competition and focus on experiencing anxiety. Athletes who routinely do quiet eye training well and can properly attenuate the negative effects of deep anxiety competition so that the concentration of athletes in competing will be improved and will achieve success in the match. Football training should be innovative and specific to attract more efficient and effective training interest. Innovation development of quiet eye training is one way to increase concentration in kicking toward more efficient goals (Ima et al., 2015).

Players also stated that in practice, the quiet eye uses the goalkeeper with the help of the coach by instructing the direction of the target to go opposite from the direction conveyed, or in practice, quiet eye using goalkeepers is given a higher level of anxiety or added stress levels than training quiet without a goalkeeper so they managed to push the negative thoughts to one side and maintain a high level of performance. Players are more careful by slowing down their thinking when they are in a critical situation. In addition, the coach also stated that so far, it had not occurred to us that calm eyes could reduce the heart rate and body movements become smooth, and it was unthinkable that this exercise could be trained. This supports the idea that a calm eye filters out distractions, calms the mind and body at critical times, even under stress, and gets good results.

This research is supported by relevant sources from both national and international journals, such as research conducted by Joan et al. (2017) with the research title "Quiet eye training improves accuracy in basketball field goal shooting" as a whole shows training technique quiet-eye can be taught effectively to large group players and can provide
benefits in shooting accuracy on target in basketball. Joe et al. (2014) Performing under pressure: Quiet eye training improves surgical knot-tying performance. This research demonstrates the effectiveness of training quiet-eye, not only in improving the effectiveness and efficiency of skills in the game but also in mediating the negative effects of anxiety or stress on game skills. (Greg et al., 2017) “Aiming to Deceive: Examining the Role of the Quiet Eye During Deceptive Aiming Actions” in this research training quiet-eye used for fake kicks with the goalkeeper and without using the goalkeeper where the result shows increased training quiet-eye required when using deceptive kicks, where the soccer player maintains accuracy by tacitly processing information related to the goalkeeper's location.

The ability to coordinate the movements of a soccer player is very highly required in producing accurate kicks on goal maximum, and high and low levels of coordination of a player reflect the ability to move in various difficulty levels in an orderly manner fast, precise, and efficient manner. It is argued that improving eye-foot coordination significantly affects the accuracy of shooting skills in soccer players (Awang, R. E, 2016). Furthermore, a clear difference exists between high and low coordination of the increased kicking ability in soccer games (Dwi et al., 2016).

There should be innovative and specific approaches to attract more efficient and effective training in soccer training. Development innovation-quiet eye training is one way that can be applied to increase concentration in shooting more efficiently at goal (Ima et al., 2015). Quiet Eye can help the performance and skills of athletes in performing actions well in various sports. With calm eyes carried out so far, the athlete participants can kick the ball well (Andre et al.; F., 2017). Soccer is a popular game. Football is a team game with one ball large, relying on leg muscle strength and endurance and excellent body endurance. This opinion confirms that football is a sport that is done in groups and requires the cooperation of a good team so that players can complement and be close to each other without teammates (Badri, 2021).
In this study, two suitable training methods were applied, namely the training method quiet eye using the goalkeeper and the quiet eye training method without the goalkeeper, to see which method has a higher increase in the accuracy of kicks on goal. Both training methods have the same goal: to improve the accuracy of kicks on the goal. However, each of these training methods has differences in results with the amount of influence that the exercise has a quiet eye on the accuracy of kicks on goal by 39.70%.

To get the desired kick in accordance with needs in playing, pay attention to the location of the pedestal at the time of kicking, touching the ball with the foot, touching the ball with the foot of the point body weight and strength, and Follow Through. Indeed, kicking the ball into the goal is not easy to do (Taufiq & Witarsyah, 2019). Another factor that influences the good or bad of something's basic technique is accuracy/precision. Accuracy is a person's ability to control free movement toward a target, which can be a direct object that must be known, for example, in putting the ball toward the goal. Kick accuracy is important in football performance (Raharjo, 2018). The physical condition is a unified whole of the components that can not be separated, both the increase and maintenance (Pratama, 2015).

Football is a sport that fully requires a training program without training, of course, an athlete will not play football optimally, let alone shoot accurately on goal. In this group, the results obtained after the final test carried out in the field were better obtained in the quiet eye use goalkeeper training group. So there is a significant difference between practicing using the goalkeeper's quiet eye and practicing using the quiet eye without the goalkeeper on the accuracy of kicks on goal. Based on the average results obtained that training equal eye influence on increasing the accuracy of shooting results on PS Kampar.

CONCLUSION

From the research results, exercising a quiet eye increases the accuracy of kick results, both for players with high and low eye-foot
coordination. Quiet eye data without goalkeepers are normally distributed and homogeneous. Exercise quiet eye in football aims to increase one's concentration when kicking a ball where a soccer player can control visual attention (the player's eyes are not going anywhere/directing or focusing on the point of view of the intended object and target) in other words the calm eyes on the player are focused on the target or targets. Suggestions for football club coaches to use quiet eye training to improve eye-foot coordination in training to increase the accuracy of kicks on goal.

REFERENCES


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