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## Effect of Quiet Eye Exercises, Anxiety Levels, Eye-Foot Coordination on the Accuracy of Kicks against Football Players

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**Abstract:** The purpose of this study is to test the influence of the interaction of quiet eye training methods, anxiety, eye-foot coordination against the accuracy of kicks to the goal of football players of the University of Riau Province. This study was designed using pseudo experiments with a factorial design of 2x2x2. The samples in this study used purposive sampling or aiming samples; then, participants were tested using the accuracy test of football goal kick to determine the success rate and accuracy. The data was analyzed with a three-track Anova test. The result in this study is an interaction of the influence of quiet eye training methods, anxiety, eye-foot coordination on the accuracy of kicks to the player's goal. This study can improve the design of training protocols for exercises to improve the accuracy of kicks to the goal.

**Keywords:** quiet eye, anxiety level, eye-foot coordination, the accuracy of kicks to goal.

## 安静的眼保健操、焦虑水平、眼脚协调对足球运动员踢球准确性的影响

**摘要：**本研究的目的是测试静眼训练方法、焦虑、眼足协调的相互作用对廖内省大学足球运动员踢球准确性的影响。本研究是使用伪实验设计的，因子设计为2x2x2。本研究样本采用有目的抽样或瞄准样本；然后，参与者使用足球球门球的准确性测试进行测试，以确定成功率和准确性。使用三轨方差分析测试分析数据。本研究的结果是静眼训练方法、焦虑、眼脚协调对球员射门准确性的影响之间的相互作用。这项研究可以改进练习的训练方案的设计，以提高踢球的准确性。

**关键词：**安静的眼睛，焦虑程度，眼脚协调，踢球的准确性。

### 1. Introduction

Football is a team sport done by kicking the ball around by players with goal targets and aiming to put the ball into the opponent's goal. In football, it is necessary to master the basic techniques of the game for a player to play this sport. Football technique is one of the foundations to play football or action necessary for a person to play football. The action or technique is to kick the ball (shooting), hold the ball, control the ball, dribble, head the ball, and throw the ball [1]. Kicking is an important skill in football, and kicking with high accuracy is required to successfully score (shooting), give to team members, and clear the ball

when releasing defensive pressure. The kicking technique is the main thing that a player must master, and from an attacking point of view, the goal of football is to shoot at the goal.

Furthermore, the quality of shooting is determined by accuracy in kicking, i.e., the accuracy of the ball towards the goal [2]. The same study stated that the main factor of decreased shooting quality is that players tend to be unstable using the back of their legs. Furthermore, the accuracy of a person's kick is influenced by a variety of factors, among them; foot pedestal, core stability, limb muscle strength, flexibility, muscle endurance, neuro-muscular

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coordination, balance, and concentration and focus on targets [3].

Based on the opinions of the above experts, to get the accuracy of a football kick game, a player must have good eye-foot coordination. Furthermore, according to James & Kevin [1], in football, a player gives a good kick influenced by eye-foot coordination with the ball so that giving the right kick is the basis of a successful kick. Further explained by James & Kevin [4], kick accuracy is very important for the team's success in football that is influenced by the coordination of the eye-foot with the ball and affecting performance variability. Improving eye coordination significantly affects the accuracy of shooting accuracy of football players [5]. Furthermore, there is a clear difference in influence between high coordination and low coordination towards improved kicking ability in football games [6]. In addition to the problem of eye-foot coordination of players is the level of anxiety of the player at the time of kick football game. Anxiety can arise at any time, and each player has experienced anxiety; it's just that anxiety levels vary. In the science of anxiety, psychology or (anxiety) is interpreted as a psychological reaction that arises against everything new. Anxiety is a situation where the body's physiological state seems to suffocate, thus giving rise to an excessive heartbeat due to the reaction that has just appeared [7].

According to Palazzolo [8], anxiety symptoms are among the most important factors that affect sports competitions. There is also seeing anxiety as a phenomenon that inhibits the game and states that anxious players are fragile players. Furthermore, Iqbal [9] talks about factors that affect anxiety in the face of a match two factors cause anxiety: negative experiences in the past and irrational thoughts. Howie & Dave [10] focused their research on increasing concerns that anxiety performance doesn't adequately meet motor problems, especially during the execution of skills that are closed and run on their own. Therefore, suggesting how a player directs their attention is essential for interaction in skill formation. To further support the role of attention disorder decreases performance caused by anxiety, the mechanism is certainly still lacking consensus [11]. Therefore, it can be managed through psychological techniques that can optimize the mental aspect felt when doing a kick to the goal, that is, by doing a special exercise, such as quiet eye exercises.

A quiet eye is a final fixation or tracking the view towards the relevant target before the critical phase of the movement directed at the goal [12]. Further described, the quiet eye is officially defined as the final fixation or tracking of gazes located in a specific location or object in the task room in a degree of viewpoint [13]. Furthermore, the quiet eye supports task performance to promote efficient overall movement preparation and gesture function and has

proven to be a good index of task skills and expertise in various targeting and interception tasks [14]. Joe et al. [15] demonstrated the effectiveness of quiet eye exercise behavior to improve effectiveness and performance efficiency and mediate the negative effects of anxiety on performance. Greg et al. [16] shows that increased duration of quiet eye training is required when using deceptive kicks, and accuracy is influenced by the position of the goalkeeper with the conclusion that during a deceptive kick, football players keep accuracy by secretly processing information related to the location of the goalkeeper. In this study, the use of quiet eye exercises using the goalkeeper and not using the goalkeeper to improve the accuracy of the kick to the goal.

## 2. Research Methods

The research method used is pseudo-experimentation with factorial design. The research subjects were 130 players from The University of Se Riau Province. The purposive sampling technique determines the sample. Participants were divided into two groups, namely groups with quiet eye training using goalkeepers and without goalkeepers, then grouped again into groups with high and low levels of anxiety and high and low eye-foot coordination. The collection of anxiety level data instruments adopts sports anxiety instruments [17], with validity and reliability values on each of the factors among them, motor factors in the range of 0.946 to 0.358, affective factors in the range of 0.773 to 0.654, somatic factors in the range of 0.861 to 0.392, cognitive factors in the range of 0.501 to 0.334, with a total of 22 statement items. The player's level of anxiety is determined by several statement items describing the symptoms and cognitive, affective, somatic, and motor impairments that athletes experience when facing matches; these symptoms and disorders indicate anxiety, and the scale of exercise anxiety is designed in the form of self-report. The goal is for the subject to express his thoughts and feelings as soon as possible after facing the match. Athletes are asked to respond to the details of the statement according to what they experience by selecting the item that best suits them when facing the match. Alternative respondent answers have been determined using the Likert scale, namely, "Highly Compliant (SS), Appropriate (S), Somewhat Appropriate (US), and Not Appropriate (TS)." The scoring for the exercise anxiety scale is adjusted to the answer to the question item, namely: SS = 4, S = 3, AS = 2, TS = 1.

For the eye-foot coordination test using the soccer wall volley Test in [18], the tested one kicked the wall with the target made on the wall along the wall 2.44 meters with a height of 1.22 meters. The limiting area for kicking is marked on the floor with a size of 3.65 meters x 4.23 meters in front of the target area, kicking distance of 1.83 meters. The tests were conducted 3

times, with each time for 20 seconds. The research instrument used to measure the accuracy of kicks to the goal in this study was Lough borough Soccer Shooting (LSST) [19]. By the way, the ball was originally placed on the crossbar in the middle of the shooting zone. The starting position for participants is to face away from the goal but still within walking distance to play the ball. Once there was a signal from the investigator, the participant ran to the right cone, touched the top of it, and then returned to play the "rebound" pass to the bench, turned around, controlled the ball if necessary, and then shot towards the goal when in the shooting zone. The participant then proceeds his shooting by running past the goalkeeper. Each experiment consists of 10 shots with 5 left feet and 5 right feet, each with a break of 1 minute between each shot sequence. Censorship has six commands in the experiment randomly selected for each player. Unbeknownst to the participants, the goalkeeper is positioned on the opposite side by simply issuing the "left/right" signal. In terms of feedback, the player will be informed of the shooting speed he has taken, the time it takes to complete each sequence, and the score or goal scored (if any). The authors examined the data before analyzing it. The analysis involves Microsoft Excel software. Research of variable data is calculated equally, and standard deviations are based on the achievements of the respondents' scores. After the respondents were given a score following the section conditions of the data collection procedure, the data was then analyzed using a three-track Anova analysis. Also, the data is conducted through regression analysis, then test the normality of the data with Lilliefors and homogeneity test with Barlet test.

### 3. Result and Discussion

To test theoretical research conducted using analysis techniques on Anova factorial 2x2x2 summary can be seen Table 1 follows.

Table 1 The interaction of quiet eye training methods on the ankle's level of anxiety and coordination to the accuracy of kicks to the goal in football players of the University of Riau Province

F(ABC) count	56,65276	F table	4,012973
F(ABC) count	>	F table	So H0 is rejected

Based on the analysis of three-track variants, the interaction between quiet eye exercises, anxiety levels, and eye-foot coordination to the accuracy of kicks to the goal (shooting) of football players University of Se Riau Province. As seen in the calculation table ANOVA factorial 2x2x2 above. Where the calculated price of F0 interaction (FABC) = 56.65276 and Ft = 4.012973. It appears that F count > Ftable so that H0 is rejected and H1 is accepted; thus, it can be concluded that there is an interaction between quiet eye exercises, anxiety levels, and eye-foot coordination to the accuracy of shooting football players In Riau Province. These results align with Joan's research [13], which overall

demonstrates a large group of players can effectively learn quiet-eye training techniques. They can provide benefits in shooting-to-target accuracy in basketball.

Furthermore, study of Joe et al. [15] demonstrates the effectiveness of quiet-eye exercise to improve the effectiveness and efficiency of skills in the game and mediate the negative effects of anxiety or under pressure on game skills. Vine & Klostermann [20] obtained results of research on quiet eye training for motor control and skill acquisition; and (2) mechanisms (cognitive, neuroprotective, and psychological/psychophysiological) that explain how QE and QE-training exert their influence on a skill. In research of Greg et al. [16], quiet-eye exercises were used for trick kicks with goalkeepers and without the use of goalkeepers where results showed improved quiet-eye training required when using deceptive kicks, whereby football players keep accuracy by secretly processing information related to the location of the goalkeeper. In further research, Jacob et al. [21] recommended helping sports players combat anxiety in high-pressure situations. According to Gal & Ronnie [22], optimal quiet-eye exercises help players improve player accuracy in sports skills.

### 4. Conclusion

Based on the results of research and discussion, there is an interaction of the influence of quiet eye training methods, anxiety, eye-foot coordination to the accuracy of kicks to the goal of football players Se Riau Province University. Therefore, to improve the accuracy of kicks of football players University in Riau can be done by choosing a form of training method approach that corresponds to the growth and development of the player's motor skills and following the stages in conducting technical exercises at the cognitive stage, fixation, and automation stages designed to help optimize the appearance of football players.

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