Optimization of Leg Muscle Power, Emotional Intelligence, and Achievement Motivation to Improve Football Performance

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ABSTRACT: This study aims to reveal the effect of exogenous variables directly, causally and simultaneously on endogenous variables. This research method is a quantitative method using an ex-post facto research design. The sample in this study were SSB Putra Lintas Buno Jambi players aged 13-15 years. Sampling was done by purposive sampling technique. The data analysis technique used is path analysis. The results of the study showed that 1) There was a direct effect of leg muscle power on the shooting ability of the men's cross-bungo Jambi football. 2) There is a direct effect of emotional intelligence on the ability to shoot football in the men's cross Bungo Jambi. 3) There is no direct effect of achievement motivation on the ability to shoot football in the men's cross bungo Jambi. 4) There is no indirect effect of leg muscle power on the ability to shoot football through achievement motivation in male SSB players across Bungo Jambi. 5) There is no indirect effect of emotional intelligence on the ability to shoot football through achievement motivation in male SSB players across Bungo Jambi. 6) There is a simultaneous and significant effect of leg muscle power, emotional intelligence and achievement motivation on the ability to shoot football in the male cross-bungo Jambi cross-bungo Jambi.

KEYWORDS: Leg muscle power, emotional intelligence, achievement motivation and football shooting ability

I. INTRODUCTION

Sport is a series of physical and psychological activities carried out by humans consciously and is very useful for treating and improving the quality of health of the human body, so that the sustainability of daily human life can run well, without any significant obstacles or disturbances. According to (Ilham, 2014) "Sport is a systematic process in the form of all activities or efforts that can encourage developing, and fostering one's physical and spiritual potentials as individuals or members of society in the form of games, competitions / competitions, and peak achievements in the formation of quality Indonesian people based on Pancasila". A nation will prosper if its people have good health, because good health is the main foundation in activities.

This is as contained in Law Number 11 of 2022 concerning the National Sports System. The government’s objectives in the field of sports are contained in Chapter II Article 4 which reads "Maintain and improve health and fitness, achievement, intelligence, and human quality, instill moral values and noble morals, sportsmanship, competitiveness, and discipline, strengthen and foster national unity and unity, strengthen national resilience, raise the dignity, dignity, and honor of the nation, maintain world peace”. There are various fields of sports achievements, one of which is football. Football continues to show a strong appeal to society.

Along with the popularity of football and to improve achievements, the Indonesian Football Association (PSSI) has implemented various programs including organizational arrangement, coach training, refereeing upgrades, sending local players to train abroad. The target of all activities carried out by PSSI is for the birth of talented and outstanding athletes who are able to raise the image of Indonesian football at the national and international levels. According to (Wicaksono, 2015) the quality of students can be explored optimally through systematic sports coaching, coaching is carried out with the intention of making someone from initially unprofessional to become a professional athlete.

From the observations and interviews, it can be seen that players still have difficulty scoring goals or shooting the ball towards the goal (shooting). According to (Taylor, 2016) "to have good shooting skills also requires courage, confidence, a touch of selfishness, and imagination", describing that when shooting players must have a good mentality and have a strong
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imagination so that the ball is kicked. Meanwhile, (Bahtra, 2022) "Players are required to have both leg muscles well to shoot in various situations so that they can shoot hard and accurately". Based on the opinion above, in order to have good shooting skills, players need to have mentality, imagination and also leg muscle power so that the direction of the kick is strong and accurate.

Similar to this, there are several factors that affect the shooting ability of men's football players when conducting training sessions and competing, it can be seen that there are still many players who do not have good leg muscle power, emotional intelligence that has not been controlled and also the motivation to excel in training is still not visible so it is difficult to score goals, because at the time of kicking on goal it is still not perfect so that at the time of kicking When shooting on goal, it is often off target or not on target to the goal.

Power or explosive power the ability to cope with loads with very high contraction speeds into a short time. According to (Khasan, 2023) explosive power is the ability to produce maximum power in a limited time, so explosive power is also a combination of two abilities, namely speed and power to release large power in a short time. Meanwhile, according to (Nadira &; Yendrizal, 2022), leg muscle power is the ability to produce large amounts of power with limited time derived from contraction of the skeletal muscles (body) of the lower limbs. Based on the above opinion, it can be concluded that in the game of football, by having good leg muscle power, players can make hard kicks into the goal in an attempt to score goals.

While in the mental sphere, one of them also requires emotional intelligence. According to (Muttaqin &; Khoirul, 2020) emotion is a complex form of organism, involving physical changes of a broad character in breathing, pulse, glandular production, and from a mental point of view is a state of pleasure or anxiety, characterized by the presence of strong feelings and usually impulses in the tangible form of a behavior. Meanwhile, according to (Permadi, 2021) emotional intelligence (EQ) is the ability to recognize our own feelings and the feelings of others, manage our emotions and build relationships with others, and motivate ourselves.

Based on the above opinion, someone who is difficult to control his emotions, will not be able to think well or think wisely, regardless of high IQ and CQ (creatif quotient). In a match, both intelligences are indispensable. IQ cannot function properly without the participation of emotional passion by the player in the course of a match. But usually the two intelligences complement each other. Based on this explanation, it can be interpreted that to support performance in shooting in football games, players must have good emotional intelligence, when in difficult positions players will remain optimal in shooting towards the goal as targeted.

One of the psychological aspects that influence the increase in football player achievement is achievement motivation. According to Damanik, (2020) explains that "motivation is an impulse that arises in a person to behave. This drive is in the individual who is the driving force to do something, for example the drive to learn, the drive to achieve or the drive to work. Meanwhile, according to (Sujarwo, 2021) achievement motivation is the desire, desire, will, and driving force to be able to excel, namely to surpass achievements that have been achieved or those achieved by others. Based on this opinion, achievement motivation is a very important object in sports, which encourages players to be more enthusiastic about improving their abilities and passing the achievements they have achieved. However, each player has different achievement motivation from one another, some have high achievement motivation and some have low achievement motivation. Players who have high achievement motivation will always act according to what they achieve and always want the best, while players who have low achievement motivation will certainly find it difficult to achieve optimal performance. Based on the description above, the author is interested in conducting research and discussing more deeply about the direct or indirect influence of Leg Muscle Power, Emotional Intelligence, and Achievement Motivation on the Football Shooting Ability of Male Football School (SSB) Players across Bungo Jambi Regency.

II. MATERIAL AND METHODS

The research method used in this study is a quantitative method using an ex-post facto research design. In the ex-post facto study there was no control group or pre-test activity. The cause and effect relationship between one subject and another subject is not manipulation, because ex-post facto research only reveals symptoms that exist or have occurred. The facts in this study are revealed as they are from the collected data. While the analysis technique uses a path analysis approach, which is a technique to analyze the causal influence that occurs in multiple regression if the independent variable affects the dependent variable both directly and indirectly.

The sample in this study was 25 U13-U15 players of the Putra Lintas Bungo Jambi Football School (SSB). Sampling is carried out using purposive sampling techniques, according to Sugiyono (2021: 288) that: "purposive sampling is a sampling technique for data sources with certain considerations that aim to make the data obtained more representative". The data analysis technique used is path analysis, according to Kadir (2017: 241) "Path analysis is an analytical technique used to study the causal
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relationship between independent variables and non-free variables. Causal relationships are arranged in the form of hypothetical models based on scientific substance, namely the theoretical basis or experience of researchers’.

III. RESULTS AND DISCUSSION

1) Football Shooting Ability

Variable data on Football Shooting Ability was collected through football shooting tests on 25 players who were sampled. From the results of measurement and data management, it can be seen that the highest Football Shooting Ability value that can be achieved is 14 and the lowest is 8. Furthermore, the average value (mean) of 10.68 was obtained. From the measurement of Football Shooting Ability, a standard deviation of 1.76 is obtained. The distribution of data on the Football Shooting Ability of SSB Putra Lintas Bungo Jambi players based on the average and standard deviation can be seen in the table below:

<table>
<thead>
<tr>
<th>No</th>
<th>Interval</th>
<th>Frekwensi Absolut (Fa)</th>
<th>Relative Frequency (Fr %)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8 – 9</td>
<td>7</td>
<td>28%</td>
<td>Less Than Once</td>
</tr>
<tr>
<td>2</td>
<td>10 – 11</td>
<td>11</td>
<td>44%</td>
<td>Less</td>
</tr>
<tr>
<td>3</td>
<td>12 – 13</td>
<td>5</td>
<td>20%</td>
<td>Enough</td>
</tr>
<tr>
<td>4</td>
<td>14 – 15</td>
<td>2</td>
<td>8%</td>
<td>Good</td>
</tr>
<tr>
<td>5</td>
<td>16 – 17</td>
<td>0</td>
<td>0%</td>
<td>Very Good</td>
</tr>
<tr>
<td>Sum</td>
<td></td>
<td>25</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

2) Power leg muscles

Variable data on Leg Muscle Strength was collected through tests using the Standing Long Jump Test on 25 players who were sampled. From the results of measurement and data processing, an average value of 2.2596, a standard deviation of 0.0534, a high value of 2.37 and a lowest value of 2.17. The distribution of the results of the Limb Muscle Power data of the SSB Putra Lintas Bungo Jambi Football Player can be seen in the following table:

<table>
<thead>
<tr>
<th>No</th>
<th>Interval</th>
<th>Frekwensi Absolut (Fa)</th>
<th>Relative Frequency (Fr %)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.17 – 2.21</td>
<td>6</td>
<td>24%</td>
<td>Less Than Once</td>
</tr>
<tr>
<td>2</td>
<td>2.22 – 2.26</td>
<td>7</td>
<td>28%</td>
<td>Less</td>
</tr>
<tr>
<td>3</td>
<td>2.27 – 2.31</td>
<td>9</td>
<td>36%</td>
<td>Enough</td>
</tr>
<tr>
<td>4</td>
<td>232 – 2.36</td>
<td>2</td>
<td>8%</td>
<td>Good</td>
</tr>
<tr>
<td>5</td>
<td>2.37 – 2.41</td>
<td>1</td>
<td>4%</td>
<td>Very Good</td>
</tr>
<tr>
<td>Sum</td>
<td></td>
<td>25</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

3) Emoisonal Intelligence

Data on Emotional Intelligence variables were collected using a likert questionnaire test on 25 players who were sampled. From the results of measurement and data processing, an average value of 174.96, a standard deviation of 17.5373, the highest value of 217 and the lowest value of 148 were obtained. The distribution of the results of the Emotional Crdasan data of SSB Putra Lintas Bungo Jambi Football Players can be seen in the following table:

<table>
<thead>
<tr>
<th>No</th>
<th>Interval</th>
<th>Frekwensi Absolut (Fa)</th>
<th>Relative Frequency (Fr %)</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>148 -161</td>
<td>6</td>
<td>24%</td>
<td>Less Than</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Classification</th>
<th>Interval</th>
<th>Frekwensi Absolut (Fa)</th>
<th>Relative Frequency (Fr %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than Once</td>
<td>167 - 181</td>
<td>6</td>
<td>24%</td>
</tr>
<tr>
<td>Less</td>
<td>182 – 196</td>
<td>4</td>
<td>16%</td>
</tr>
<tr>
<td>Enough</td>
<td>197 – 211</td>
<td>4</td>
<td>16%</td>
</tr>
<tr>
<td>Good</td>
<td>212 – 226</td>
<td>5</td>
<td>20%</td>
</tr>
<tr>
<td>Very Good</td>
<td>227 - 241</td>
<td>6</td>
<td>24%</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td>25</td>
<td><strong>100%</strong></td>
<td></td>
</tr>
</tbody>
</table>

4). Achievement Motivation

Data on the Achievement Motivation variable was collected using a likert questionnaire test on 25 players who were sampled. From the results of measurement and data processing, an average value of 203.2, a standard deviation of 24.5161, the highest value of 238 and the lowest value of 167. The distribution of the results of the Achievement Motivation data for SSB Putra Lintas Bungo Jambi Football Players can be seen in the following table:

**Tabel 4. Distribusi Frekuensi Motvasi Berprestasi (X3)**

IV. DISCUSSION

1. The Direct Influence of Leg Muscle Power on the Football Shooting Ability of SSB Putra Lintas Bungo Jambi Players

In the results of path analysis calculations, it was found that there was a direct effect. In the calculation results of path analysis, it was found that there was a direct effect of Leg Muscle Power (X1) on Football Shooting Ability (Y) (ρyx1) = 0.418 and a significance value (sig) = 0.012 which is more smaller than the probability value (α) = 0.05. It turns out that the path of the direct influence of Leg Muscle Power on the Shooting Ability of the Men’s SSB Cross Bungo Jambi Players is 17.4%, which means it is proven and acceptable. The test results are in accordance with the study of the theory, the theoretical framework and the hypotheses put forward in this study. The results of this study can be accepted empirically. Power is the ability of a muscle or group of muscles to withstand a load or receive a load in carrying out an activity or work, such as the ability of the leg muscles to overcome the pressure or load caused by the activities of a player in taking a goal kick.

The effect of Leg Muscle Power on the Football Shooting ability of SSB Putra Lintas Bungo Jambi Players is 17.4%. While the remaining 82.6% is influenced by other factors. Other factors that can affect football shooting ability are usually such as spasticity, foot dead coordination and so on. The results of these findings confirm the theory and conceptual that have been described before, so it can be said that Leg Muscle Strength is very important for a football player in shooting, because without good Leg Muscle Strength it is impossible for a player to realize his ability to shoot football.

Football is a sport that requires good physical condition, one of these physical condition abilities is explosive power or power. According to (Karola & Padli, 2019) explosive power is important for a football athlete to have because an athlete is required to be able to run fast, kick the ball, and jump when dueling in the air, all of which require very large muscle performance in playing soccer, especially the performance of leg muscles. Meanwhile, according to (Sarifudin et al., 2023) Leg muscle power plays an important role in shooting football, so to produce good shooting accuracy, one way is to have good leg muscle power. So if the leg muscle power of a soccer player is good, then the ball will help in shooting quickly and strongly towards the goal at the desired target. On the other hand, players who have low leg muscle power will not be able to shoot at goal optimally.
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2. Pengaruh Langsung Kecerdasan Emosional terhadap Kemampuan Shooting Sepakbola Pemain SSB Putra Lintas Bungo Jambi

In the calculation of the path analysis, it was found that there was a direct influence of Emotional Intelligence (X2) on Football Shooting Ability (Y) (ρyx2 = 0.556 and significance value (sig) = 0.002 which was smaller than the probability value (α) = 0.05. It turns out that emotional intelligence has a direct and significant effect on football shooting ability.

Based on these findings, the hypothesis proposed in this study is accepted empirically. It can be interpreted that good Emotional Intelligence has a relationship and influence in shooting football. The Effect of Emotional Intelligence on the Football Shooting Ability of SSB Putra Lintas Players by 30.9%. While the remaining 69.1% was influenced by other factors.

(Muttaqin & Khoirul, 2020) "In a football match, players are required to always focus and concentrate during the match. Players who do not have good emotional intelligence will more often make mistakes such as making unnecessary fouls, accuracy of passing or shots that are not on target, and are not able to work together better so that the negative impact caused not only affects himself but also the team". From this explanation, it can be understood that emotional intelligence is needed so that a player to stay focused and concentrated during the match and of course when under pressure by opposing players, the player still remains calm and can control emotions so that it is still optimal in kicking towards the goal or shooting.

Based on the description above, it can be concluded that players who have good emotional intelligence will be able to manage emotions, thoughts and behaviors when playing football even in difficult situations, so that they can control the game and can shoot hard towards the goal and right on the desired advice.

3. Pengaruh Langsung Motivasi Beprestasi terhadap Kemampuan Shooting Sepakbola Pemain SSB Putra Lintas Bungo Jambi

In the calculation of the path analysis, the direct effect of Achievement Motivation (X3) on Football Shooting Ability (Y) was found that Ha was rejected. This means that there is no direct influence of Bprestasi Motivation on Football Shooting Ability in SSB Putra Lintas Bungo Jambi players.

According to (Naibaho, 2017) "achievement motivation can be expressed as a driving force for an activity and a person's behavior in carrying out an activity so that it becomes better, faster, more effective, and more efficient than the activities carried out previously, and as a force that makes a person able to carry out an activity for a long time, which in essence solely wants to achieve a goal. But it was also found that players who have good achievement motivation do not necessarily have good skills either, as explained (Effendi, 2016). There are two main components for analyzing motivation as the basis for individual behavior, one internal component, which is encouragement based on needs, or motives, and two components of the goals to be achieved, with the achievement of goals means that individual needs have been fulfilled. Based on the explanation above, good achievement motivation does not necessarily produce good performance either, because achievement motivation is also influenced by internal factors and external factors that are present in each player.

4. The Indirect Influence of Leg Muscle Strength on Football Shooting Ability through Achievement Motivation of SSB Putra Lintas Bungo Jambi Players

Based on research conducted regarding the indirect effect of Leg Muscle Power on Soccer Shooting Ability, it was found that Ha was rejected. That is, there is no indirect effect between leg muscle power on the ability to shoot football through achievement motivation. To achieve a good kick, there must be an element of physical condition, especially leg muscle power which is used to lift the thigh and reject when kicking the ball, according to (Jumaking, 2020) "Explosiveness is the ability to carry out activities suddenly and quickly by mobilizing all one's strength in a short time." Muscle power is also influenced by good technical skills and movement coordination. Leg power can be increased by providing speed and muscle strength training as well as increasing efficiency and movement coordination. From this explanation, regular training and maximum effort are needed to get the ability to shoot football, but each player has different motivations as described (Effendi, 2016). There are two main components to analyze motivation as a basis for individual behavior, one internal component, which is encouragement based on needs or motives, and two components of the goals to be achieved, with the achievement of goals means that individual needs have been fulfilled.

5. The Indirect Influence of Emotional Intelligence on Football Shooting Ability through the Motivation of SSB Putra Lintas Bungo Jambi Players

Based on research conducted regarding the indirect effect of emotional intelligence on the ability to shoot football, it was found that Ha was rejected. That is, there is no indirect effect between emotional intelligence on the ability to shoot football through achievement motivation. Emotional intelligence is a person's ability to accept, evaluate, manage, and control the emotions of himself and those around him, according to (Permadi, 2021) Emotional intelligence is the ability to recognize our own feelings and the feelings of others, manage our own emotions and build relationships with others, and self-motivated. Whereas
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Achievement Motivation is the driving force within a person to gain success and involve oneself in activities where success depends on personal efforts and abilities possessed, according to (Effendi, 2016) Achievement motivation is an encouragement for someone to do something that is the best, and is a the achievements he has made, so that he excels/exceeds other people in many ways and that can give satisfaction to himself. Emotional intelligence and achievement motivation can affect a player's performance on the field, but the more important factors in a player's performance on the field are basic technical skills and a good understanding of tactics. There are several ways to score goals against the goal, one of which is by shooting, according to (Bahtra, 2022) Shooting is the player's ability to kick hard and accurately at the opponent's goal to get a goal.

6. The Effect of Leg Muscle Strength, Emotional Intelligence and Achievement Motivation Simultaneously and significantly on the Football Shooting Ability of SSB Putra Lintas Bungo Jambi Players

Football is a sport that requires good physical condition, one of these physical condition abilities is explosive power or power. According to (Karola & Padli, 2019) explosive power is important for a football athlete to have because an athlete is required to be able to run fast, kick the ball, and jump when dueling in the air, all of which require very large muscle performance in playing soccer, especially the performance of leg muscles. According to (Muttaqin & Khoirul, 2020) "In a football match, players are required to always focus and concentrate during the match. Players who do not have good emotional intelligence will more often make mistakes such as making unnecessary fouls, passing accuracy or shots that are not on target, and not being able to work together better so that the negative impact that arises does not only affect himself but also the team". SSB Putra Lintas Bungo Jambi. According to (Naibaho, 2017) "achievement motivation can be expressed as a driving force for an activity and a person's behavior in carrying out an activity so that it becomes better, faster, more effective, and more efficient than the activities carried out previously, and as a force that makes a person able to carry out an activity for a long time, which in essence solely wants to achieve a goal.

In the results of path analysis calculations, it was found that there was a simultaneous influence of Leg Muscle Power (X1), Emotional Intelligence (X2) and Achievement Motivation (X3) on Football Shooting Ability (Y) obtained Rsquare = 0.816 or 81.60% so that Ho was rejected and Ha is accepted, where there is a simultaneous and significant influence between Leg Muscle Strength, Emotional Intelligence and Achievement Motivation on the Ability to Shoot Soccer in SSB Men's Cross Bungo Jambi Players. This means that all exogenous variables have an influence on endogenous variables. Where the resulting effects are different but give influence and contribution in Shooting Ability. Based on the results of this study simultaneously (simultaneously) each exogenous variable, namely Leg Muscle Strength, Emotional Intelligence, and Achievement Motivation significantly influences the endogenous variable, namely the Ability to Shoot Soccer, which can be empirically accepted.

V. CONCLUSION

Players are advised to be able to follow the training seriously in an effort to improve their Shooting Ability. The training material provided by the coach will be easier for players to apply and absorb if they pay attention and do it seriously. For coaches, it is recommended to make interesting and not boring training material to improve Shooting Ability by considering the level of Leg Muscle Power, Emotional Intelligence and Achievement Motivation of the player.

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