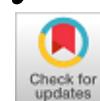


# The Mental Toughness of State and University Football Players in Malaysia



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**Abstract:** This study aimed to identify and compare the level of mental toughness that consisted of five subfactors namely the reversal of mistakes, pressure control, focus, self-confidence, and motivation among football players of a state and university football team. The questionnaire used in this study was Sport Mental Toughness Questionnaire (SMTQ) that measure the level of mental toughness among the players. The findings showed that the state players scored greater mistake reversibility, pressure control, focus concentration, and self-confidence compared to university players. No significant differences of motivation between those two clubs. The findings of this study can provide guidance to coaches especially to identify the level of mental strength among their players and provide appropriate mental training.

**Index Terms:** Mental strength, reversal mistakes, focus, self-confidence, motivation, football players.

## I. INTRODUCTION

Mental toughness can be defined as attitudes, emotions and thoughts that influence individuals to respond to stress, challenges and difficulties to achieve their goals [1]. Athletes with good mental toughness are said to be able to handle any situation effectively [2]. According to Clough, Earle [3], mental toughness includes several criteria such as confidence, commitment, challenge and ability to cope with stress.

Athlete's peak performance depends on four factors: technical, tactical, physical and psychological [4]. Most coaches, researchers and athletes agree that the top psychological training in the training pyramid is the most difficult part to being trained to athletes.

Mental aspects are an important part of the competitive athlete including football players. However, the quality and performance of the national football team to bring success in

the arena is getting worse today due to many factors, especially in the aspect of the mental toughness of the athlete or team player. Mental toughness has been reported as an important psychological feature in achieving excellence in sports [5].

Sport especially soccer is seen as capable of exerting a name of a nation and is generally respected as in Spain and England. Soccer is undeniably the most popular sport in the world. Many researches have been conducted on how to improve performance in the game. This includes researches in fitness training and testing [6-10], coaching development [11-14] and psychology [14, 15]. Williams and Reilly [16] states that the success factor of a football team is influenced by the sociological, physical, physiological, and psychological characteristics of the athlete.

Mental toughness is one of the important elements in sports psychology associated with football [17, 18]. This is acknowledged by Sir Alex Ferguson and Sven Goran Eriksson, the world's leading Football Team Manager, which claimed mental toughness contributed to the success of a team and was an important component used in the local football league [19]. The athlete's mental resistance is the basis of achieving the objective of the game.

It is the authors' objective to determine whether there are differences of mental toughness between different levels of football players. Thus, this study was conducted to compare the mental toughness between state and university football team.

## II. METHODOLOGY

### A. Participants

The participants were 40 football players comprising of 20 football players from a state football team the other 20 players from a university football team. All players should have at least one year representing the current team.

### B. Instrument

The instrument used in this study was the Sport Mental Toughness Questionnaire (SMTQ). The questionnaires were translated from English into Malay by Ahmad Nazri (2017). The value of validity and reliability is 0.739 (Cronbach Alpha). This questionnaire form consists of two parts: part A and B. Part A is the demographic information of the study participants consisting of:

- i Age
- ii Highest Achievements
- iii Experience Level



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Part B questionnaire contains 30 questions to be answered YES or NO. The questionnaire was divided into 5 sets of criteria by Goldberg [20] which has important features in testing the level of mental strength. The set criteria are reboundability, handle pressure, concentration, level of confidence and motivation.

### **C. Procedures**

A total of 40 sets of questionnaires (SMTQ) were distributed to the participants. The process of data collection was done at the stadium and data was collected only once by researchers and an assistant. Instructions are given clearly and the language used in the questionnaire is also easy to understand. The participants were asked to answer the questionnaire honestly and sincerely without any element of fraud. The questionnaires that were answered were recaptured on the same day.

### **D. Statistical Analysis**

Descriptive statistic was used to analyse the mean and standard deviation. Independent t-test was used to compare each items score between the two teams. All analyses were conducted by using Statistical Package for the Social Science (SPSS) software version 23.

## **III. RESULTS**

**Table 1.** Level of mental toughness (reversibility, emotional control, focus, self-confidence and motivation) among state and university football players

Parameter	Teams	N	Min	SP
<b>Reversibility</b>	State	20	4.20	0.834
	University	20	2.55	1.432
<b>Emotional Control</b>	State	20	5.05	0.605
	University	20	2.60	1.392
<b>Focus</b>	State	20	5.10	0.447
	University	20	3.60	1.142
<b>Self Confidence</b>	State	20	4.80	0.696
	University	20	3.75	1.164
<b>Motivation</b>	State	20	5.00	1.076
	University	20	4.00	1.451

**Table 2.** The comparison of mental toughness between state and university football players

Parameter	Diff. Mean	Sig	t	df	Sig (2 tailed)
<b>Reversibility</b>	1.650	0.003	4.454	38	0.01
<b>Emotional Control</b>	2.450	0.001	7.221	38	0.01
<b>Focus</b>	1.500	0.014	5.468	38	0.01
<b>Self Confidence</b>	1.050	0.043	3.462	38	0.01
<b>Motivation</b>	1.000	0.051	2.476	38	0.18

Table 1 showed the physical characteristics of participants involved in this study.

Table 2 showed the comparison of mental strengths namely stress, stress control, concentration, self-esteem, and motivation.

The findings showed that there is a significant difference between the two teams ( $t = 4.454$ ;  $p < 0.05$ ) with a mean

difference of 1.65 in which the state team having a higher level of error reversibility compared to the university team. There was a significant difference in pressure control ie ( $t = 7.221$ ;  $p < 0.05$ ) with a mean difference of 2.45 in which the state team had higher pressure control than the university team

There was a significant difference to the concentration ( $t = 5.468$ ;  $p < 0.05$ ) with a mean difference of 1.50 indicating that the state team had a higher concentration ( $M = 5.10$ ) compared to the university team ( $M = 3.60$ ). For self-confidence criteria, there was a significant difference between the two teams ( $t = 3.462$ ;  $p < 0.05$ ) which showed the state team had higher levels of confidence ( $M = 4.80$ ) than university ( $M = 3.75$ ) with a mean difference of 1.050.

There was no significant differences in motivation criteria between both groups.

## **IV. DISCUSSIONS**

The findings showed that there was significant difference in the level of mistakes, pressure control, focus concentration, and confidence level between the two teams investigated in this study. There was no significant difference in motivation between both teams.

The level of mistakes reversibility in the state team was higher ( $t = 4.454$ ;  $p = 0.003 < 0.05$ ) compared to the university team. According to Jones [5], highly experienced athletes are able to control the situation and restore the calmness and regulate mistakes during the competition. This shows that high seasoned athletes can control their emotions and correct the mistakes they have made.

This was demonstrated in Table 1 that showed the demographic background of the state team where the level of experience of their team members is 11 players (55%) with an experience of 4-6 years. The rest, 9 players have an experience of 7-9 years representing 45% of all team members. Making mistakes and focus on these mistakes during football games can be a source of distractions.

The coach should help his players avoid thinking of their past mistakes and avoid making anticipated performance results while they are playing. An early analysis of the findings of continuous research studies with elite level football players reveals that by overcoming the mistakes by focusing on the next step, some athlete's attention has been drawn to past mistakes that increase the possibility of making further mistakes [21]. Hence, forgetting or reversing errors in this context involves the prevention of current anticipative thinking, which ultimately affects athlete's ability to focus on current performance.

For the pressure control level, the findings show that there is a significant difference in the pressure control in which state team score higher than that of university team ( $t = 7.221$ ;  $p = 0.001 < 0.05$ ). This is because the state team is more vulnerable with more challenging matches and needs to compete in its own category for their more challenging competition. This is further reinforced with the team's top achievement information of 25% playing at the state level, 60% playing at National level and 15% ever playing in international matches.



According to Nicholls, Levy [22] suggest that athletes with high mental resilience have a more realistic self-concept, which they use to deal with stressful situations by applying rational solutions to keep them calm. It is also supported by Clough and Strycharczyk [23] which states that athletes with greater exposure will create challenges as opportunities for learning and developing as well as giving high priority to their efforts, effective in dealing with and staying calm while under stress in life or sports situation.

Furthermore, for the focus subscale in mental strength, the findings show that there is a significant difference in the focus aspect that the state team player recorded a high mean score ( $M = 5.10$ ) compared to the UPSI FC Team ( $M = 3.60$ ) 1,500. This is because, in terms of the mistakes, the state team also recorded a good level of mistakes reversibility and a positive impact on their focus. Athletes with high levels of mental strength can adapt themselves to a more challenging situation while maintaining a good phase of focus when dealing with the situation.

This is supported by Crust and Azadi [24] and Nicholls, Levy [22] who said that athletes with high level of mental strength will better overcome challenges and difficulties because of their optimistic perspective, the tendency to respond to challenges, and the low stressor factor. Carr and Hinckley (2012) have illustrated the concept of focusing attention in elite level football. Attention is characterized as an important aspect of sports performance and component center for improved learning skills and athlete's performance.

The ability to focus directly affects the psychological elements required to achieve excellent performance, such as mental readiness and control over disorders [25]. Orlick also holds that focus is the skill that can be learned and practiced.

For the self-confidence submission findings, mean values and standard deviation for self confidence in the state team were higher ( $M = 4.80$ ,  $SD = 0.696$ ) compared to the UPSI FC team ( $M = 3.75$ ,  $SD = 1.164$ ). The experience of the state football team is 55% of the players having experience of 4-6 years, and 45% have a 7 - 9 year experience although they are in the under 20 squad. Factors such as experience, quality of training, and assistance from experienced coaches and psychologists greatly influenced the reduction of negative behavior and lack of focus in a game. The study also found that the level of experience and skills of athletes can be enhanced if their level of self-confidence is at a good level. Self-confidence as one of the most important variables related to sports performance [26] enhances the ability to manage emotions and gives athletes the opportunity to control negative emotions more effectively.

Empirical research shows that in athletes, high levels of self-confidence can be attributed to useful self-efficacy that can be seen [27]. Research findings have shown that self-confidence can enable resources to cope with competitive concerns [27]. Based on this, it can be explained that self-confidence helps athletes with appropriate cope strategies to manage and control competitive concerns and through which athletes can improve sports performance.

Subsequently, in order to discuss the subscale of motivation in mental strength, each coach and athlete has set goals to be achieved regardless of short or long term. To encourage athletes to achieve the goal set, motivation is an important aspect that athletes need to emphasize to help them dealing with resistance situations and achieve victory. In the motivation aspect, there was a difference but not significant

between the state team ( $M = 5.00$ ,  $SP = 1.076$ ) and university team ( $M = 4.00$ ,  $SP = 1.451$ ) with a mean difference of 1.00. This is because motivation factors have extrinsic and intrinsic factors for each individual or more specific in each footballer.

Each team management has their own strategies to increase motivation in each of their players. Extrinsic motivation influences behavior through existing influences but free from the player's own personality. For example, oral praise, rewards with objects, confessions, penalties, and prohibiting participation cannot meet human needs, unless it is important to coordinate environmental expectations. However, intrinsic motivation helps to meet human needs, regardless of environmental expectations. The intrinsically motivated purpose of behavior is not an external factor. In intrinsic motivation activity, the behavior comes from itself [28]. Intrinsic motivation occurs when an individual is involved voluntarily in activity for his own interests; however, extrinsic motivation arises if one is motivated by an external factor for example; rewards and social recognition [29].

## V. CONCLUSIONS

In conclusion, mental strength plays an important role in an athlete as it is seen to help athletes gain success in sports. Sánchez-López, Fernández [30], find athletes with high levels of mental strength easily receive instruction and apply them rather than athlete's with low mental strength. According to Sheard and Golby [31], they pointed out that mental strength is a key factor in determining success in sports. Studies conducted by William and Thompson [32] also stated that experience factors and participation of regular and high level competitions can increase mental strength among athlete.

This is evidenced by the findings of the study that have been obtained where two teams with different player backgrounds have measured their mental strength level. The results of this study are expected to contribute to the development of sports, especially in sports psychology. Information about mental strength can provide guidance especially to team coaches to assess the level of mental strength of their team players and put more attention on the sub-scale of mental strength that needs improvement.

Therefore, appropriate mental training should be given to the area [33-36]. Additionally, it can be emphasized that the real athletic achievement is not only focused on the mastery of physical skills, but it should be combined with psychological and mental faculties so that athletes can act and play better in a competition.

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