



Psychological Relatedness Factor influencing Performance in Archery

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ABSTRACT

This paper serves to explain the conceptual performance in archery that affected by psychological relatedness factor. Coaches, teammates and athlete play important role in every sport. Distinguishing and understanding each factor of psychological relatedness is important in determining the athlete's performance. The inter-relatedness between coach and athlete is vital in bringing out the best performance of athletes. Despites of having advance tools and equipment in archery, however, archer's performance still can be fluctuated, this may be due to the intangible factor which requires more study in the context. Thus this research served the theoretical explanation that may affect the athlete's performance. This research suggests that factor such as coach; teammate and athlete should understand the way they communicate with each other, so that the interaction between them would not affect athletes' performance. Therefore, future research should focus more on interrelationship existed between them and factors that might influence on athletes' performance.

Keywords: Athlete; teammates; coaches; archery; performance

1. INTRODUCTION

Performance is the observed outcome carried out by the individual. Performance plays a vital role in achieving goal. In today's world, performance act as indicator of an organizational or any institutional to determine success (e.g., performance appraisal). It seems that performance is a crucial role in human activities for survival and to go beyond expectation. According to [1] Performance in sport is when athlete achieved a highest score. [2] contends that there are two types of performance which are i) absolute performance and relative performance. Absolute performance is where athletes' performance is depending on the physiological of an athlete for example the percentage of fast twitch muscle. It stated that the absolute performance could enhance by undergone a training sessions. Study from previous research mention that training technique on postural body sway during the release of arrow has an impact on the performance score [3]. Minimal body movement during the release of arrow indicates higher points of an arrow. However, it depends on the archer's expertise and years of experience. Some archers does not focus on the postural movement of the body, because they were focus on the basic techniques of handling the bow, breathing techniques, releasing techniques, stance of archers and drawing the bow. Archers who are experience does not bother a second to think about their shooting form. They were more favorable to focus on the mental strength and individual confidence because such basic skills are already immersed in them through years of training, and it is an automatic action.

2. PERFORMANCE

Relative performance is performance count during the competition or any given situational face by athlete which it may be affected by the environment (peer, crowds, official games) and from their selves such as physiological injury and mentally affected [1]. In archery, archers were exposed to crowd where media, supporters, audience, bunch of other archers and coaches were existed in the competition. Sometime, the crowds are actually influence the archers while they were shooting because it could increase the stress and athletes who worry too much about what others may think about him/herself, which then triggered the anxiety [4]. Uncontrolled anxiety or fear of failure is not good for athletes because it may influence the outcome of the athletes [5]. This paper intends to adapt the relative performance based on [1] [2] where the concept of relative performance is by looking at competition score compare with training score, and the relative performance (surrounding environment, internal factor).

In archery, beside the techniques of training such as postural body, techniques of releasing the arrows and blind shoot [3][6] athletes' performance is determined by comparing the score obtained with the present score. It is a standardized to measure performance for archers in Malaysia since our national coach Lee Jae Hyung made a comparison between two consecutive competitions as he was saying after the team men recurve defeated by Mexico in World Cup Final in Columbia (2013).

“It is a big improvement compared to the first two stages in Shanghai and Antalya. The team made it to quarter-finals in Shanghai but were eliminated in the first round in Antalya last month. This should put the team in good stead as they get ready for the World Archery Championships in Antalya in October,”

Therefore current research proposed to look at performance as the score obtained in the competition comparing with the training score to indicate the performance improvement as absolute performance. The format score in archery is to shoot 36 arrows to complete one distance. Archers requires shooting 6 arrows in every set (end). After shooting 6 arrows, archers will retrieve arrow and write the hit points on the scoreboard, then start with the next set (end) . The process is continuing until they finish 36 arrows. Each arrow represents 10 points of the highest mark and 1 is lowest point. The colour of the target face indicates the points that the arrow will hit. If the arrow hit on the line, so the arrow will take the higher point or point that close to the X point.

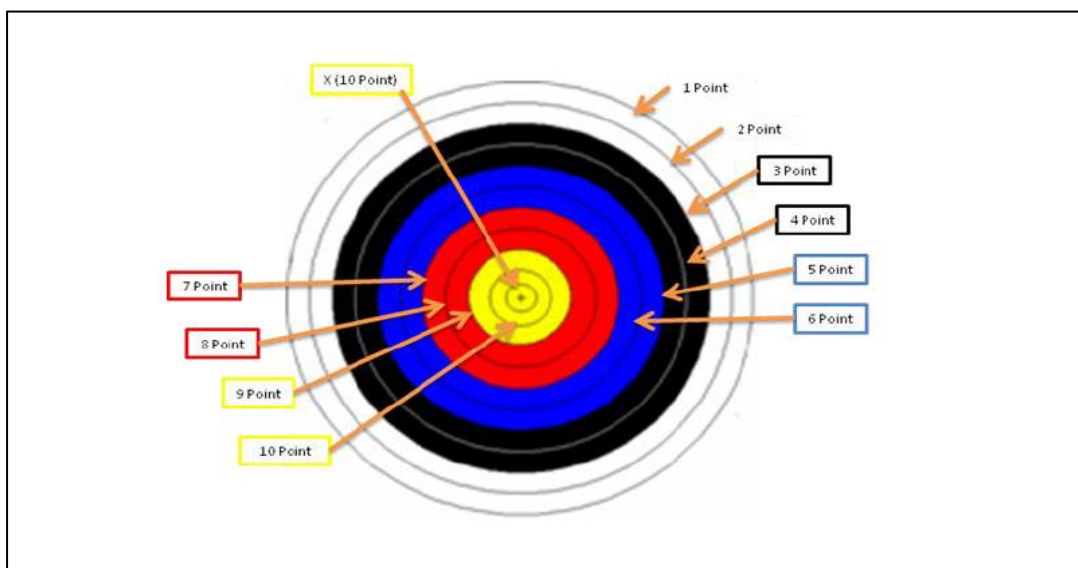


Figure 1: Target Face diagram (Score Ring), by Muhamad Noor & Azrul Hisham (2012)

The perfect score for each distance shooting is 360 points. The event of shooting in archery competition basically they have for ranking round and *Olympic* round. The performance in this study was based on the athletes ranking round as to see the improvement obtained score in the competition compared with the training score. The score in the Olympic round is not suitable, because the Olympic round is the knockout round or true elimination which trigger emotions as athletes were facing the opponent [7]. In this condition, athletes were facing the opponent and even the score was using the system point. And the condition of athletes trained for knockout round in the training and competition is not the same because the number of athletes is different to implement the knockout round in training because during training, their teammates became their opponent where as in competition, they face opponent from different state or region. So that is why the ranking round is applicable in the study because everybody has the same condition where to shoots 720 points during training and competition. The format of archery shooting in the competition will be use either FITA round or Double 70meter/50 meter.

In archery, there are five distances that standardized in International Federation of Archery or FITA (*Fédération Internationale de Tir à l'Arc*), which are 90 meters, 70 meters, 60meters, 50 meters, and 30 meters. For men category both compound and *recurve* they must completed the FITA score by shootings four distances which are 90 meters, 70 meters, 50 meters, and 30 meters. Whereas for women both compound and *recurve* they should completed FITA score of 70 meters, 60meters, 50 meters, and 30 meters. However, in this study, the National Competition in Malaysia 2013 used format of shooting which is double 70meter for *recurve* category both for men and women, and 50meter category for both men and women compound. The score obtain for each individual athletes should not exceed 720 points.

In other word, performance in archery is to get high score in the competition. To do that there are essence that can lead to high performance such as imagery, self-talk, setting goal and relaxation technique [8]. However, to implement those techniques require coach to facilitate during training session or even in short break during the competition. Study conducted by [5], mention that athletes that trained by the coach that enforce the mastery of task involving will decrease the athletes anxiety. This explains that well trained athletes also contribute towards their outcome.

Since archery is a mental game therefore most of the training method require athlete to have self-concept [8] intrinsic motivation [9] team supportive [10] and coach assistance [11] in order to perform well. The objective of this study is to explain factors contributing towards archers' performance through psychological relatedness between coach, athletes and teammates in Malaysian context.

2.1 Performance is influenced by Coach

Coach and athlete are attached together, [11] which means that, there is no way that athletes could be alone without having any contact with their coach. The interaction of coach and athletes may raise any consequences on athletes such as enjoyment, happiness, and satisfaction. Coach may give athletes benefit such as support, advice, and knowledge [3][11] . Hence, it portrays that coaches play important role for athletes' development in any sport arena.

The action of the coaches is affecting on the nature of athletes' satisfaction such as the individual performance and ability utilization [12]. This situation reflects that the coach and athlete are interdependent with each other where the coach actions may influence on athletes' satisfaction. Indeed, current research used Interdependence

Theory [13] as an underpinning theory to explain the relationship existed. In this theory, there are positive and negative affect of interdependence. The Interdependence Theory [13] explains how one's person action will influence on other persons' behavior. There are two types of social interdependence theory which are positive and negative. The positive interdependence is the action of individual may lead to one's goal achievement, whereas the negative interdependence is opposite positive action of individual that tend to drag one's in the failure of goal attainment. It means that the relationship between two parties formed base on the benefits and the outcomes received. Relating the theory in this study, it explains that the outcome of a person (e.g.; athlete) is triggered by the contacted person (e.g., coach) whether positive or negative. In this case, the positive interaction of coach and athlete may generate athlete's satisfaction toward coach [14]. Coach who giving the guidance, instructions, and knowledge neither training nor competition will raise some sort of feeling satisfied or dissatisfied upon athletes [15] The satisfaction feeling of athlete towards coach may impact on the athlete's outcome [16]

The nature of athlete's satisfaction towards coach is being proposed by [17] Athletes' satisfaction can be considered in fulfill the desire need of psychological well-being that leads athletes to the optimum state [18] Interdependence Theory (Figure 1) shows that how important the coach for athletes to perceived for athletes' satisfaction that will influence on athletes' performance.

The theory explains that the interaction of positive and negative will lead to ones' outcome. In this study, researchers refer to the basic premises of a goal structure which is the goal attainment. To meet the goal, there must be interaction between the coach and athlete whether direct or indirect. The direct interactions which coach communicate orally or written with the athletes that will affect future outcome while indirect interaction is the way of coach action or behavior that that will affect the athletes' outcome [19]. Relating to the study, this theory explains the interaction of coach and athlete whether direct or indirect will affect the athletes' outcome which is performance.

Athletes' performance can be depending on their satisfaction level [16]. Athletes satisfaction on coach will depend on the coach action or behavior that athlete perceived [20]. Athletes who perceived coach as the source of satisfaction will lead to good outcome [3]. Therefore coach must have good interaction with their athletes in order for athletes to perform well because the need of athlete satisfaction is necessary for their psychological well-being thus improving the performance [2]

2.2 Performance is influenced by Team

On the other hand teammates also play an important role to athlete's performance. It has been said that team interaction is the main point for all to work together to achieve a common goal [10]. The interaction between the team will likely increase athletes to pursue a common goal which then lead to performance [12]. Even though archery is more to individual games, yet it still have event on team match. Moreover, for our national archers, they receive their glorious day won a medal in international competition (e.g Sea games, Asian GP) is through team event. Therefore, there is no isolation of teamwork in this sport. Perhaps previous study had shown that team cohesion affect individual group member behavior that leads to the athlete's performance and it is more important for coaches to focus on the team rather than individual [10]. In addition previous research has shown that the team collaboration has a significant with collective efficacy that effect on performance [21]. The Interdependence Theory state that social interaction can lead to the outcome whereby

there is existence of group processing in team context. Similarly with the above discussion, team that show collaboration, integration, cohesion, spiritual will tend to influence positive outcome whereas the negative outcome appeared if there is no sense of belonging to the team, no teamwork and no mutual goal. It was supported by [21] where group interdependence can lead to the performance. Indeed, as the basic premises of a goal structure is the goal attainment, to meet the goal requires interaction within the team which then contribute to the outcome[19].Therefore, by fostering good interaction within the team can lead an athlete to perform well.

2.3 Performance is influenced by individual

Besides, an individual also play an important role for his/her success. Win or lose is all depends on athletes intrinsic motivation [22] self-concept [8] and self-satisfaction [17]. What ever happen in the field during the competitions is all on athlete. Athlete holds the responsibility to play with honor and courage as to achieve the goal and shows the performance. It depends on athletes on how consistent him/her during practice, and their mental and physical toughness to face the battle. Athletes satisfaction on her/himself also show a significant relationship with performance [15]. It shows that the inner thinking is important for an athlete to success. Indeed, previous research has discussed the intrinsic motivation play a fundamental role on performance [22]. Everything that athlete does, need energy to complete or participate in the task, to pursue the goal it require athlete's inner drive to accomplish the task [23]. Study shows by[11], state that athlete perception on self is important to determine their outcome. It portray that whatever they perceived will demonstrate their actions. Therefore, it does shows that perception and motivation of athlete will contribute to their performance.

As a small conclusion performance of athlete can be affected by coach, teammate and athlete. Therefore, this research proposed a theoretical framework of a study as depicted in figure 2.

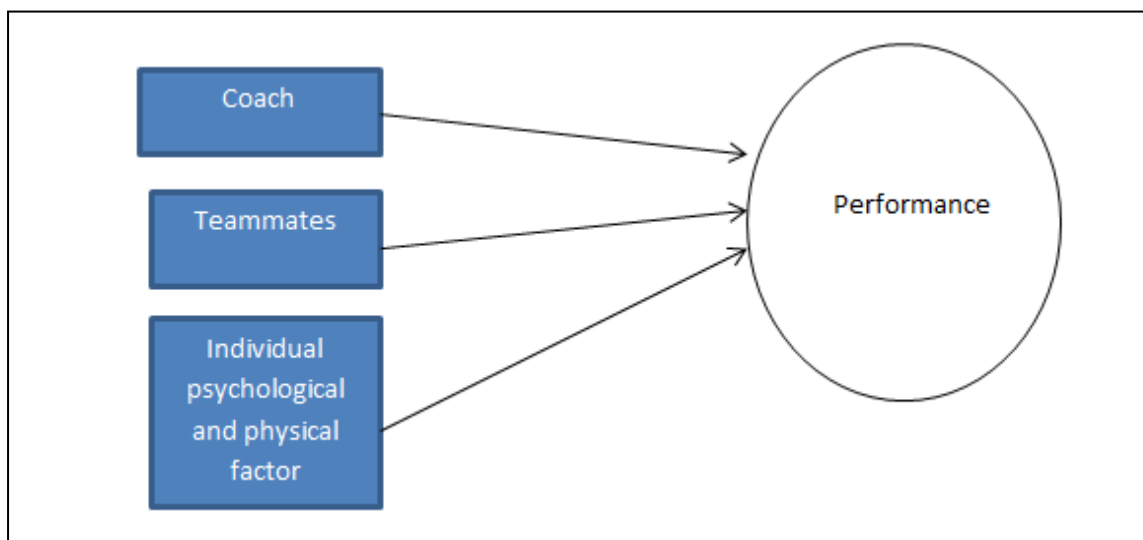


Figure 2: Proposed Framework of the study

Referring the above table, this study explain that archer's performance in Malaysia can be influenced by the psychological factor of relatedness between athlete and his/her coach, athlete and his/her teammates and within their selves. In Malaysia, study done by

[1] explained that coaches behaviour play significant roles towards athlete's performance. It means that, in developing country, most of the athletes' is still depends on the coaches, because most of the national coaches hired were international, and the tendency of athletes to depends on coach is high because of the expertise that coaches had. Meanwhile, study by [21] individual athlete is the importance part to get perform in the field; athletes need to have confidence, satisfaction and confidence as the essence to succeed. On the other hand, [10][22] contend that teammates is important for performance. It is true, especially in eastern countries, the culture of collectivism is high, which people are more concern about others, and this culture exist in any context of study in Malaysia. Thus, this study, explain factors such as coach, athletes and teammates is contributing towards archers' performance in Malaysian context.

3. CONCLUSION

As a conclusion, this paper explained three different psychological relatedness that affect athletes or archers' performances. Despite of having high score, there are factors that underlying on the obtained score of athletes. Getting high score for once is easy, but to maintain and improving the score is the hardest part. Therefore, this research suggest that factor such as coach, teammate and athlete should understand the way to communicate with each other, so that the interaction between their selves would not affect the performance. Furthermore, having a good relationship or psychological relatedness within the team is beneficial towards athlete's psychological well-being and relationship, also they may show more respect and love for each other which then creates harmonious situation. Hence, this research warrants a future research that looks into others psychological factors that could affect archer's performance such as techniques and equipment or other psychological domain factors. It is because, despites of having advance tools and equipment in archery, however, archer's performance still can fluctuate, this is may be due to the intangible factor which requires more study in the future. Limitation of this study is that this research serves as conceptual papers which most of the reference were from western countries, therefore, future study should warrant in testing the hypothesis of the framework in this study.

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