

The Effect of Imagery Exercises and Emotional Quotient on the Athletes' Anxiety Level

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Abstract

The athlete's level of anxiety experienced by the Glagah Wangi Demak Athletic club will cause a less than optimal appearance and have an impact on the achievements. The objective of this study is to analyze the effect of imagery exercise and emotional intelligence toward the anxiety level of Gelagah Wangi Demak Athletic Club. The method used in this study is an experimental method with 2x2 factorial designs. Techniques of analyzing the data used are Analysis of Variance (ANOVA) at significance level (α) 0.05. The populations are 25 athletes and the sample of the amount of 20 athletes, with purposive sampling through a sample based on characteristics (goals defined by the researcher). The instrument of the research is the emotional intelligence test and athlete anxiety test. The result using ANOVA analysis shows that there are differences of $F_{\text{value}} = 6.568 > F_{\text{table}} = 3.59$ in imagery exercise. The differences emotional intelligence effect of $F_{\text{value}} = 52.552 > F_{\text{table}} = 3.59$. There are interaction between imagery and emotional intelligence proved by $F_{\text{value}} = 5.513 > F_{\text{table}} = 3.59$. The conclusion of the study is there are differences effects between imagery exercise (video and script). There are significant differences between athletes who have high emotional intelligence and those who have low emotional intelligence toward athlete's anxiety level. There is an interaction between imagery exercise (video and script) and emotional intelligence toward athlete's anxiety.

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INTRODUCTION

Each athlete undoubtedly wants to show their best performance in a competition. There are many ways an athlete can do to perform their best and get achievements. In order to bolster them up, an athlete needs to consider several factors which can support them. An athlete needs preparation, endeavor, and training for being able to achieve their highest performance. In sport, performing the best is an absolute price which must be achieved by an athlete. Although athlete had maximum practices and proper preparation, the success of showing their best performance is not indeed achieved.

When an athlete joins a competition, they need proper mental preparation to get an optimal achievement. An athlete can be told as mentally prepared when they do not feel any fear, anxiety, worry, and other negative feelings. An athlete frequently cannot prepare themselves. They need stimulus from their surrounding environment, for instance in mental training. Some reasons why trainers are less aware of mental training for their athlete, they are, lack of knowledge, it is assumed that mental problem is changeless. Lack of time, the mental problem is only for, in a troubled athlete, mental training is limited for an elite athlete, a mental change is considered as a thing which can be done fast, and mental training is considered useless.

Supriyanto (2012) it is frequently found that trainers or athletes which said that psychological factors cause their fails in getting their set achievements. They assume that their physical training has been done optimally and during the training, athletes have shown high motivation to get their expected achievement. However, when it is getting on the match, the athletes start to worry, hard to concentrate and become less confident. That athlete, which is often to worry when it is near the match, is commonly assumed to have a lousy mental to compete.

According to Gunarsa (2004), athlete's performance is affected by several components. They are physical, technique, and psychological. Also, Hadi (2007) asserted that the components

which affect athlete's success are physical, tactical technique, and mental. A harmony coaching among physical, technique and mental is needed to get a maximum achievement. Athletes are frequently unable to perform their highest ability in a training session and competition due to having a problem with their psychology. The psychological factor often becomes the determining factor to win even though what the athletes are thinking and planning are not always able to be shown.

It is needed a hard work from the trainer to help athlete solve their mental and many psychological's problems which an athlete commonly faces in order to show their best performance. Many athletes who have good physical fitness and high ability but they are failed to show their performance in a competition. The lack of athletic ability to show their performance will affect the result of the competition which causes fails. When an athlete loses over and over, it can make a lack of confidence and motivation. Therefore, it can drive to stress and frustration. This reminds that athlete's success is the combination of physical dimension and psychological dimension.

Psychological skills training for an athlete is considered essential, besides to develop an athlete's mental, also to support the athlete's technical skills. As stated by Groppe et al., in Setyawati (2014) another reason is complex psychological aspects, unclear and too varied. Therefore a trainer can not master how to train psychological skills to improve the performance.

Part of psychological disorder which can distress athlete's performance is anxiety. Anxiety is closely related to self-confidence they have. The personality of each athlete determines this. In some specific conditions, an athlete with good mental and physical preparation and showing improvement during the training, they cannot show their best performance in the competition. They lose the movements which have been trained beforehand. That athlete possibly has a problem with anxiety. Hence, they become a bit hesitant about doing each movement, get difficulties in controlling the games, get a lack of concentration and feel distressed because of

anxiety. Anxiety will affect an athlete's confidence and spirit of the competition. The occurring problems can decrease their self-esteem, and furthermore, it is related to their personality.

Chronic anxiety faced by athletes causes stress in the form of unpleasant feeling so that the athletes' psychological conditional is not stable (Jamaliah, Sugiharto, and Handayani, 2015). Exercises bring advantages to improve the athletes' performance, but strict physical exercises can cause higher athletes' anxiety level. (Krause et al. in Afriani, Puspaningtyas, Mahfida, Kushartanti, and Farmawati, 2017). According to Weinberg and Gould, "anxiety is the negative emotional condition indicated by nervousness, worries, and fear as well as related to body activation or enthusiasm" (Mylsidayu, 2014). In the nervous symptom, typically dominated by psychic complaints (fear and worry), but can also be physical complaints. Meanwhile, according to Straub, "anxiety is a situational reaction to various stimulation of stress" (Husdarta, 2014).

An athlete's anxiety will affect the athletes' physics and mental. In this condition, according to Gunarsa (2004), "the source of anxiety faced by athletes can be within the athletes' themselves and can be from outside or environment." There are some kinds of anxiety arises in the athletes of athletic club Glagah Wangi Demak as follows: (1) fear that they cannot give the best performance, (2) imagination that the opponent they will face is better, (3) anxiety that the injury they have ever experienced will emerge, (4) some athletes are nervous, their hands are shivering, and cold sweating when they enter the competition arena, (5) athletes cannot get focused when they are instructed by their trainers to do warming up because they feel fear when imagining the competition they will face.

Anxiety which arises too high will disturb the athletes' performance, as he/she will be difficult in handling the rhythm of the game, less able to control the accuracy of response time, as well as muscle contraction, getting tired easily, decrease in the ability and accuracy to read the opponent's game, too hasty in taking the

decision, and tend to do movement without conscious mind control (Ciptaningtyas, 2012).

The enhancement of physical, technical and tactical abilities without mental training will cause a negative result since mental is the booster to strengthen the physical, technical and tactical abilities in sports performance (Fatahilah, Rahayu, and Soekardi, 2017). Imagery is often called guided imagery, visualization, mental exercises, or self-hypnosis.

Imagery is a technique which is commonly used by a sports psychologist to help an individual visualizes or trains his/her mind which is relevant to the activities he/she will do. In the sports context, imagery is used to help athletes create more real visualization related to the competition that the individual will join (Setyawati, 2014). Imagery can be a part of the exercise process that should be given regularly and structured.

An athlete's ability to overcome the anxiety problems is related to emotional quotient in the self-control and motivation concepts, while quotient itself is generally related to intelligence quotient and emotional quotient (Anggara, and Kartiko, 2013). The lack of an athlete's ability to manage his/her emotional quotient can cause disadvantages for the athlete, as the ability to control emotion affects getting the best achievement.

Emotional stability or emotional control of an athlete determines in gaining an achievement. How an athlete can control his/her emotion under competition pressure and control himself/herself by keep focusing on the competition. Emotional quotient of each athlete is different, there are some athletes with high emotional quotient, and some others have a low emotional quotient. An athlete is an individual who has own unique. He/she has own talent, own behavior pattern and own personality as well as life background which specifically affect himself/herself (Zulfikar, Setyawati, and Hidayah, 2014).

Regarding the psychological problems faced by the athletes of athletic club Glagah Wangi Demak, the writer needs to study to find out the cause of the problems, then to determine

the appropriate solution to enhance the athletes' performance to encourage the athletes to be better and get much achievement. More specific, this study intends to investigate the effect of imagery and emotional quotient on the athletes' anxiety level. Also, this treatment is expected to be able to control the athletes' minds, mental, and physics which is better when doing the exercises and competition so that it can improve the athletes' achievement of athletic club Glagah Wangi Demak in the future.

METHODS

This study was a quantitative study by using an experimental method which aimed to compare two different types of treatment to the research subject with factorial design technique.

The research design employed was factorial design 2x2, meaning that two factors were being investigated. The first factor was imagery video and script treatment; the second factor was a high and low level of emotional quotient.

The research design employed pre-test – post-test Control Group Design (Sugiyono, 2010). This research design described that there was a group given imagery video and imagery script exercise, however, before the treatment, pretest was conducted first in the form of questionnaires of anxiety and emotional quotient test by using Emotional Competency Inventory scale which was used to determine whether one athlete was included in imagery video or imagery script groups.

The grouping of athletes employed ABBA matching system. After pretest was conducted, the athletes were given treatment and post-test. The population of this study was the athletes of athletic club Glagah Wangi Demak as many as 25 athletes. The sample was 20 people. In determining the sample, purposive sampling technique was used. The subject of this study was the athletes of athletic club Glagah Wangi Demak who joined competitions at the Regency level or Province level.

This experimental research involved two variables, they were dependent variable (anxiety)

and independent variable in the form of manipulatable independent variable which was imagery treatment (video and script) and attributed independent variable which was a high level of emotional quotient and low level of emotional quotient.

RESULTS AND DISCUSSION

To collect the initial data, a pre-test was conducted by using questionnaires of anxiety. Before the exercise program, the emotional quotient test was carried out first for 20 athletes. The result of the two aspects measurement obtained four groups. The groups were groups that would be given imagery video with a high level of emotional quotient (A₁B₁), and a low level of emotional quotient (A₁B₂).

The treatment of imagery video exercises was conducted 12 times of exercise and one time of pretest one time of post-test outside the exercise schedule. From the initial research conducted, the following result is obtained.

Table 1. Pre-test and Post-test Data of Athletes' Anxiety Level in Athletic Club Glagah Wangi Demak

Imagery exercise	Emotional quotient level	Data sources	Statistics	
			Mean	Total
Video	High	Pre-test	42.6	213
		Post-test	23	115
		Changes	19.6	98
	Low	Pre-test	41.8	231
		Post-test	23.4	149
		Changes	18.4	82
Script	High	Pre-test	46.2	209
		Post-test	29.8	117
		Changes	16.4	92
	Low	Pre-test	52	260
		Post-test	36.4	182
		Changes	15.6	78

From the table, the results are:

1. The group with imagery video exercise has the pre-test mean 42.6 and post-test mean 23 with the improvement mean 19.6, while the group with imagery script exercise has the pre-test mean 41.8 and the post-test mean 23.4 with the improvement mean 18.4.
2. The group with the low level of the emotional quotient with imagery video exercise has the pre-test mean 46.2 and post-test mean 29.8

with 16.4 improvements. Meanwhile, the group with imagery script exercise treatment has the pre-test mean 52 and the post-test 36.4 with 15.6 improvements. Below is the further details.

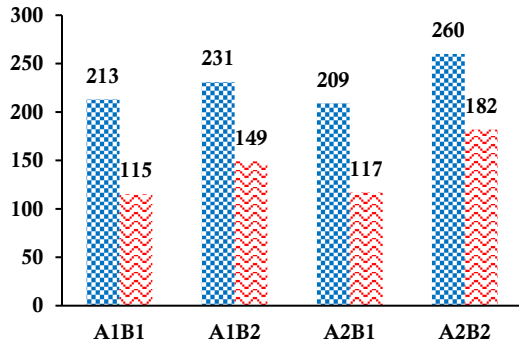


Figure 1. Bar Chart of Pre-test dan Post-test

From the evaluation, it is obtained the decreased value of athletes' anxiety level in each group which needs to be presented in the form of a diagram as follows.

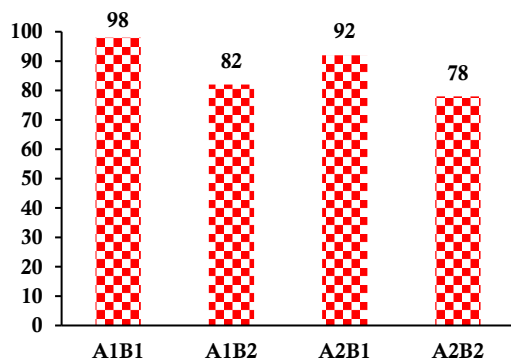


Figure 2. Diagram of Decreased Mean Comparison of Athletes' Anxiety Level in Each Experimental Group

Description:

- A₁B₁ : imagery video treatment with a high level of emotional quotient
- A₂B₁ : imagery script treatment with a high level of emotional quotient
- A₁B₂ : imagery video treatment with a low level of emotional quotient
- A₂B₂ : imagery script treatment with a low level of emotional quotient

Table 2. The result of Data Normality Test

Group	Kolmogorov-Smirnov ^a		
	Statistic	df	Sig.
A ₁ B ₁	.234	5	.200 [*]
A ₁ B ₂	.282	5	.200 [*]
A ₂ B ₁	.237	5	.200 [*]
A ₂ B ₂	.246	5	.200 [*]

* : This is a lower bound of the true significance

^a : Lilliefors Significance Correction

Test of data normality in Table 2 shows that in A₁B₁, A₁B₂, A₂B₁, and A₂B₂ groups, the sample is from a population which is normally distributed because the significance value is higher than 0.05.

Table 3. Test of Homogeneity of Variances

F	df ₁	df ₂	Sig.
1.209	3	16	.338

Homogeneity test shows that the significance value is greater than 0.05 (Sig > 0.05) for athletes' anxiety variable, so the sample activities are homogeneous. The sample is from a population which is normally distributed, and homogeneous continued to the analytical test by using parametric test.

The first hypothesis states that there is a difference in the effect of imagery video and script exercises on the decrease in athletes' anxiety level of athletic club Glagah Wangi Demak which was tested by using ANOVA test and obtained $F_{\text{value}} = 6.568$ with the significance value 0.021. This calculation result was consulted to F_{table} with df numerator = 1 (b-1) dan df denominator (kb(n-1)), with significance level 0.05 obtaining $F_{\text{table}} = 3.59$, since $F_{\text{value}} > F_{\text{table}}$ or $6.568 > 3.59$, the significance level $0.021 < 0.05$ then H_a state "there is a difference in the effect of imagery video and script exercises on the decrease in athletes' anxiety level of athletic club Glagah Wangi Demak" is accepted.

The second hypothesis which states that there is a difference in the effect of low and high level of emotional quotient on the decrease in athletes' anxiety level of athletic club Glagah Wangi Demak was tested by using ANOVA test and obtained $F_{\text{value}} = 52.552$ with significance level 0.000. This calculation result was consulted to F_{table} with df numerator = 1 (b-1) and df denominator (kb(n-1)), with the significance level

0.05 obtained $F_{table} = 3.59$, since $F_{value} > F_{table}$ or $52.552 > 3.59$, with significance level $0.000 < 0.05$ then H_a state “there is a difference in the effect of low and high level of emotional quotient on the decrease in athletes’ anxiety level of athletic club Glagah Wangi Demak“ is accepted.

Therefore, athletes with a high level of emotional quotient affects the decrease in anxiety compared to the athletes with low emotional quotient.

There is an interaction of imagery exercises and emotional quotient on decreasing the athletes’ anxiety level of Glagah Wangi Demak athletic club, ANOVA test was used, $F_{value} = 5.153$ with the significance level of 0.037. This calculation result was consulted to F_{table} with df numerator = 1 (b-1) and df denominator (kb(n-1)), with significance level 0.05 obtaining $F_{table} = 3.59$, since $F_{value} > F_{table}$ or $5.153 > 3.59$, with significance level $0.037 < 0.05$. Therefore, H_a state “there is an interaction of imagery exercises and emotional quotient on decreasing the athletes’ anxiety level of Glagah Wangi Demak athletic club” is accepted.

The discussion of this study provides further interpretation of data analysis result which was done before. Based on the hypothesis testing, three analysis possibilities are as follows:

1. There is a difference in the effect of imagery video and script exercises.

This is in line with the theory that imagery is a psychological skill if used well, then it will enhance athletic performance (Amasiatu, 2013). Imagery exercises when combining with physical exercise, it will affect athletes’ performance (Mousavi, and Meshkini, 2011).

2. There is a difference in the effect of athletes with a high level of emotional quotient and the athletes with a low level of emotional quotient.

Based on the obtained test, a high level of an emotional quotient is proven more effective in overcoming athletes’ anxiety than the low level of emotional quotient. It is similar to the evaluation that individual’s quotient which is only based on IQ. The high level of IQ does not guarantee an individual’s quotient. Instead, IQ will not develop if the emotional control is not managed

properly (Zulfikar, Setyawati, and Hidayah, 2014)

Saam, and Wahyuni (2013) defined emotional quotient as the ability to notice one’s feeling and others’ feeling as well as using the information to direct minds and action. Saam, and Wahyuni emphasized emotional quotient on the emotional control to control one’s behavior.

3. There is an interaction of imagery exercises and emotional quotient on the athletes’ anxiety level of Glagah Wangi Demak athletic club.

The chart explains that imagery video exercises have higher chart than imagery script exercises. This explains the effect that to overcome athletes’ anxiety level, high emotional quotient and imagery video exercises are used.

CONCLUSION

Based on the analysis result and the above discussion, it can be concluded as follows: (1) There is a difference in the effect of imagery video and imagery script exercises on the athletes’ anxiety level of athletic club Gelagah Wangi Demak. Imagery video exercises are better in improving the result of free throw compared to imagery script exercise, (2) There is a difference in the effect of high emotional quotient and low emotional quotient on the athletes’ anxiety level of athletic club Gelagah Wangi Demak. High emotional quotient is better in overcoming anxiety compared to low emotional quotient. (3) There is an interaction of imagery exercises and emotional quotient on the athletes’ anxiety level of Glagah Wangi Demak athletic club.

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