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Are college athletes' self-reflection and insight related to performance?

[1]Deokjin Kim

[1]*Associate Professor, Department of Sport and Health Care, Namseoul University*
kdj275@nsu.ac.kr

Abstract

The purpose of this study was to investigate whether there is a difference in self-reflection and insight according to the performance level of college athletes. A total of 395 (210 male, 185 female) college athletes from 6 universities were sampled. The level of performance was divided into upper, middle, and lower groups based on the results of matches played in the past 1 year. To measure self-reflection and insight, THE SELF-REFLECTION AND INSIGHT SCALE developed by Grant et al. [4] was used. As a result, there was a statistically significant difference according to the level of performance, and as a result of post-hoc(scheffe) analysis, the upper group of performance was higher than that of the middle group and the lower group.

Keywords: *Athlete, Self-reflection, Insight, Sport Performance*

1. INTRODUCTION

Sports are human activities that demonstrate each other's performance within the given rules. In sports, performance is determined through the complex interaction of physical abilities such as physique, physical strength, and skill and psychological factors such as judgment and attention. Performance can be discussed from two perspectives. One focuses on results and the other focuses on process. The former is from the viewpoint that athletes who have won medals in the Olympics or world championships have excellent performance, and the latter is from the viewpoint that the level of sports displayed in the competition is excellent regardless of win or lose. Among them, the former viewpoint is more objective than the latter viewpoint, so in this study, the performance level was classified based on the results of the competition.

All humans live by reminiscing about the past. Through such thoughts, we evaluate, correct, and supplement our past actions to set the direction for our future life. Reflection is a term used in optics to describe light that reflects a calm surface or a mirror-like surface [1]. This refers to the process of facilitating human growth by deeply reflecting on one's past experiences, actions, feelings, and reactions. Reflection is not a momentary thought, but a process, and insight occurs in this process [2]. The concept of insight has properties that are obtained through the process of discovering and restructuring the overall structure of the problem situation [3]. Insight is to clarify one's understanding of one's thoughts, feelings, and actions [4].

Such self-reflection and insight function as a goal for human growth, but are also recognized as educational goals in various fields. Especially for athletes, their thoughts, feelings and actions through recollection of past games, training and practice can be very important resources for the future.

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Corresponding Author: kdj275@nsu.ac.kr
Tel: +82-41-580-2635
Dept. of sport & health care, Namseoul Univ., Korea

Nevertheless, the reality is that sports players are not given much time for reflection and opportunities for insight. Also, there is no reflection program for athletes. Perhaps a training log or practice log is the only way for reflection.

In a study conducted on students, although limited, it was found that self-reflection improves academic achievement [5]. Another study found that the variable that promotes academic growth is the growth goal, and reflection helps in setting the growth goal [6].

Research related to reflection has been limited to the field of education based on philosophical thinking. And these studies have a common result that reflection generally acts as a positive factor. Nevertheless, in the field of sports, there has been almost no research on the subject of reflection so far.

If the coach understands the meaning of reflection and applies it to the sports field, thereby improving the athlete's performance level, reflection will be a useful and valuable means. And if insight occurs in the process of reflection, even greater performance improvement can be expected.

Therefore, the purpose of this study was to investigate whether there is a difference in reflection and insight according to their performance level in athletes, Based on the results, it is applied to the sports field to provide basic data that can be helpful in developing a reflection program for athletes in the future.

In order to achieve the purpose of this study, the following research hypothesis was established. First, there will be differences in self-reflection according to the athlete's performance level. Second, there will be differences in insight depending on the athlete's performance level.

2. RESEARCH METHODS

2.1 Participants

Table 1. participants

		N	%
sex	Male	210	53.2
	Female	185	46.8
year	1	153	38.73
	2	116	29.37
	3	72	18.23
	4	54	13.67
performance level	Upper	116	29.37
	Middle	139	35.19
	Lower	140	35.44
	Total	395	100.0

Participants for this study were athletes belonging to the university athletics team. In three regions (Seoul, Gyeonggi, and Chungnam), two schools each, a total of six universities, were selected by a random sampling

method. A total of 395 subjects were included. Of these, 210 were male and 185 were female. There were 153 first-year students, 116 second-year students, 72 third-year students, and 54 fourth-year students. There were three groups according to the level of performance. The upper group had 116 people, the middle group had 139 people, and the lower group had 140 people. The performance level in this study is the result of the match of the past one year. The upper group is divided into semi-finalists over the quarterfinals, the middle group into the round of 16 and to 8, and the lower group into players under the round of 32. The detailed information of the participants is shown in <table 1>.

2.2 Measurement

The tool used to measure self-reflection and insight in this study is THE SELF-REFLECTION AND INSIGHT SCALE developed by Grant et al. [4]. This scale consists of 12 items for self-reflection and 8 items for insight. It was translated into Korean and used through translation and reverse translation procedures. As a result of the factor analysis to confirm the validity of the measurement tool, the commonality of questions 4 and 10 of self-reflection was low, so it was removed and the number of self-reflection was 10 questions. Each question was on a Likert scale ranging from 1 point of 'strongly disagree' to 6 points of 'strongly agree'. Higher scores indicate higher levels of self-reflection and insight. In the study of Grant et al. [4], In the study of Grant et al. [4], Cronbach's α had self-reflection .91 and insight .87 and in this study, self-reflection .79 and insight .70.

2.3 procedure

The purpose of this study was explained by contacting the athletic team leader of the university selected by the convenience sampling method in advance. Consent was obtained, and the researcher and two research assistants directly visited each university to conduct measurements. Respondents were asked to respond using the self-evaluation method, and the measurement time was approximately 10 minutes, and they were retrieved immediately after the measurement was completed.

2.4 data analysis

A total of 400 questionnaires were recovered, but only 395, which were valid data, were used for statistical analysis. As a statistical program, SPSS 27 was used. First, descriptive statistics and frequency analysis were performed to understand the trends of the collected data. And to verify the hypothesis of the study, one-way analysis of variance (ANOVA) was performed. Post hoc analysis was performed using the scheffe method. For statistical analysis, all statistical significance levels were set to α=.05.

3. RESULTS

<table 2> is the result of analyzing the difference between self-reflection and insight according to the level of performance of athletes. Two research hypotheses were accepted as both self-reflection and insight showed statistically significant differences according to the level of performance. As a result of the post-hoc(scheffe) analysis, it was found that both variables were high in the high performance group compared to the middle and low performance groups. In other words, it means that the group with high performance level had high self-reflection and insight scores.

Table 2. difference between self-reflection and insight according to the level of performance

variable	performance level	N	Mean	sd	*F*	*p*	*scheffe*
self-reflection	upper	116	3.0043	.46558	6.881	.001	upper>middle,lower
	middle	139	2.8165	.42541			
	lower	140	2.8185	.47639			
insight	upper	116	3.0787	.52299	6.993	.001	upper>middle,lower
	middle	139	2.8867	.51250			
	lower	140	2.8482	.52087			

4. DISCUSSION & CONCLUSION

This study was conducted to find out whether the self-reflection and insight dealt with in the education field can be applied to the sports field. As a result of comparing the self-reflection and insight of college students in various sports according to their level of performance, it was found that the upper group of athletic performance was higher at a statistically significant level than the middle and lower groups. There was no difference between the middle and lower groups. These results seem to indicate that self-reflective attitudes and insight are unique characteristics of the athletes with extremely high performance.

In a study [10] of tennis players, self-reflection and insight had a positive relationship with resilience and a negative relationship with stress. When looking at this in relation to this study, continuous introspection and insight can be seen as important variables that can increase the psychological tenacity of athletes, such as increasing resilience and lowering stress levels.

In the sports field, there is a concept similar to self-reflection, called imagery. It refers to recalling or creating a new experience in the mind by mobilizing all the senses [7]. Self-reflection and imagery are both processes of recalling something in the mind, but if imagery is imagination without criticism, reflection draws insight based on critical thinking. Therefore, a higher cognitive effort than imagery is required.

As there are studies [8][9] that athletes can improve performance through imagery, self-reflection can also help sports performance, and the effect is thought to be higher than imagery. If athletes identify his/her merits and weaknesses through the process of carefully reviewing and analyzing the results of practice or matches, and make plans for the future, it will naturally lead to improvement in performance.

Based on the results of this study, it is expected that follow-up studies related to the development of a self-reflection program for athletes will be conducted.

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