

# How is the Application of Mental Skills Instruments to Map the Mental Skills of College Athletes?

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**Abstract:** Mental trainings are needed to support the achievement of high performance of college athletes. The mental trainings program must be in accordance with the conditions of the athletes so that they first need to map the athletes' mental skills through the application of mental skills instruments to the college athletes. This research aims to apply mental skills instrument in college athletes. It was conducted at Universitas Negeri Jakarta in which the sample came from 29 different sports in Klub Olahraga Prestasi Universitas Negeri Jakarta consisting of 455 athletes on January-June 2019. The research instrument used Loehr's mental skills questionnaire consists of seven dimensions namely: self-confidence, negative energy control, concentration, visualization and imagery ability, motivation, positive energy, and attitude control (firstly, language validity provided through expert opinion). The research employed descriptive method with survey techniques, while data analysis technique used was descriptive statistical techniques. Results of the study showed that : 1) the majority of student in university have the high of mental skills level; 2) five aspects of mental skills that are good enough for most college athletes, namely: self-confidence, visualization and imagery ability, motivation, positive energy, and attitude control, this is because most athletes belong to the high category; 3) two aspects of mental skills that still need to be developed in the majority of college athletes, namely: negative energy control and concentration, this is because most athletes are still in the moderate category.

## 1 INTRODUCTION

College athletes are classified as amateur sportsmen who carry out sporting activities as their preferences and expertise as stated in Undang-Undang Republik Indonesia No. 3 of 2005 about Sistem Keolahragaan Nasional (National Sports System). As an amateur sportsman, college athletes have several rights, including: increasing achievement through sports clubs and associations, getting coaching and development in accordance with the sport of interest, participating in sports championships at all levels after going through selection and or competition, obtaining easy permission from agencies to participate in regional, national and international sports activities. Klub Olahraga Prestasi Universitas Negeri Jakarta or KOP UNJ is a forum for UNJ students to actualize themselves and their talents in the field of sports. Until now, UNJ has built around 28 different of sports. The students who are members of the KOP have also shown many achievements at regional,

national and international levels. These college athletes have participated in making the name of the Universitas Negeri Jakarta often won awards from the university.

According to Howell and Bompa (2018), to achieve high performance, athletes need a training methodology that is a combination of physical exercise, sports psychology and nutrition. Actually, college athletes who reach certain achievements, is the result of a combination of several factors, namely: physical, technical, strategy, and mental (Bompa and Buzzichelli, 2018). The latest factor is mental factor often forgotten, when in fact these mental psychological factors play an important role even as the main factors affecting the expected achievement. Attention to these factors also makes talented athletes who can develop his talent with the best without any barriers of factors in personality (Gunarsa, 2004). Mental or psychological factors are related to the structure and function of the athlete's personality. This factor serves as a driver or guide to the athlete's performance, as revealed in terms of reason, tactics, motivation, concentration,

tension and insecurity.

Mental is related to mood, motivation, and cognitive processes. Mentality is also associated with specific biological processes, including physical activities such as the performance of certain physical activities (Sindik and Beuer, 2015). According to Loehr (1986) mental skill consists of: self-confidence, negative energy control, concentration, visualization and imagery ability, motivation, positive energy, and attitude control. Those can influence each other in the process of achieving an athlete's achievements.

Measuring mentality in the world of sports in Indonesia seems to have not been quite popular, including the college athletes. In fact, psychological measurements or evaluations actually have often been used in various fields of life so far. In the psychology profession itself, the application of psychological assessment almost reached 91% (Groth and Marnat, 1997). Therefore, it is necessary to apply instruments that can measure mental skills for college athletes. Research instrument is an instrument used to measure the variables in the form of natural phenomena and social phenomena were observed (Sugiyono, 2010). Meanwhile, the data collection instruments is interpreted as an instrument can use to record-in-circumstances generally quantitatively and activity attributes psychological (Suryabrata, 2013). Psychological attributes that technically are usually classified into attributes cognitive and non-cognitive attributes. Suryabrata stated that to attribute cognitive, stimuli is the question. As for the non-cognitive attributes, stimuli is a statement.

Experts agree that "Sport is 90-95% mental. This is also believed by athletes and coaches. However, in reality, many trainers or sports coaches do not have data about the athlete's mental abilities. Mental aspects are indeed often lacking attention, even though they actually play an important role even as the main factors that influence expected performance.

Through this research, an application of mental skills instrument would be conducted as a first step to create a mental training model. Meanwhile, the norms that would be used are the athlete's mental skills norms listed as follows: a score of 24-30 is categorized as high (excellent skills), a score of 17-23 is categorized as moderate (room for improvement), and a score of 10-16 is classified as low (need special attention) (Juriana, 2016).

This norm is used to measure the seven dimensions of mental skills for college athletes, namely: 1) self-confidence is feeling and knowing

that you can do it, that you can perform well and be successful (Loehr in Komarudin, 2013) or a sense of security, and this will be seen in the attitudes and behavior of athletes, who appear calm, not easily hesitant or hesitant, not easily nervous, assertive, etc. (Setyobroto, 2001); 2) Negative Energy Control is an emotion ability to handle anxiety, anger, hate, fear, negative thinking, frustration, and distrust (Loehr, 1986); 3) Concentration is a constant change that is related to two dimensions, namely dimensions and dimensions of focus. In other sources, it is said that there are two kinds of attention, namely focused attention and scattered attention (Nideffer, 2000); 4). Visualization and Imagery Ability is a form of mental representation, someone will try to imagine, describe a situation as if he is doing a certain action or in a certain environment (Plessinger in Jannah et al, 2016); 5) Motivation is a force from outside and inside oneself that initiates, gives direction, determines intensity, and influences a behavior to be persistent Vallerand and Thill (Vallerand, 2007; Weinberg and Gould, 2011; Cucui and Cucui, 2014); 6). Positive Energy is thinking that can create enthusiasm and optimism in themselves, seen from the joy, pleasure, determination, and enthusiasm in the team (Loehr, 1986); 7). Attitude Control is ability to control attitudes and behavior reflects the thinking habits of an athlete, ability of individuals to resist desires or impulses that conflict with behavior that is not in accordance with social norms example: ownership, process, long-term, risk, and challenge (Berk in Gunarsa, 2004; Taylor, 2016).

## 2 RESEARCH METHOD

### 2.1 Research Type

The method used in this study was survey method, namely by using the mental skills questionnaire compiled by Loehr which consists of seven dimensions including: self-confidence, negative energy control, concentration, visualization and imagery ability, motivation, positive energy, and attitude control (firstly, language validity provided through expert opinion).

### 2.2 Research Time and Place

This study was conducted at the Sport Science Faculty of Universitas Negeri Jakarta, Jl. Pemuda no. 10 Rawamangun, East Jakarta, on January-June 2019.

## 2.3 Research Target/Subject

The population in this study were all athletes of Universitas Negeri Jakarta who joined in Klub Olahraga Prestasi UNJ, while the sample in this study were 455 athletes from 29 sports namely: pencak silat, boxing, table tennis, tennis, taekwondo, squash, softball, roller skates, sepak takraw, bola, diving, rugby, swimming, petanque, rock climbing, archery, shooting, karate, kempo, hockey, futsal, floorball, cricket, badminton, volley ball, hand ball, basket ball, athletics, fencing.

## 2.4 Data, Instrument, Data Collection Technique

The analysis technique used in this study was descriptive statistical techniques. Meanwhile, the statements of mental skills questionnaires used are presented as follows:

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### Dimension and Number of Items

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#### Self-confidence:

1. I see myself as more of a loser than a winner in competition \*)
8. I believe in myself as a player
15. I lose my confidence very quickly \*)
22. I can perform toward the upper range of my talent and skill
29. I'm mentally a tough competitor
36. I project the outward image of a confident fighter

#### Negative energy control:

2. I get angry and frustrated during the competition \*)
9. I get nervous or afraid during the competition \*)
16. Mistakes get me feeling and thinking negatively \*)
23. My muscles become overly tight during competition \*)
30. Uncontrollable events like the wind, cheating opponents, and bad referees get me very upset \*)
37. I can remain calm during competition when confused by problem

#### Concentration:

3. I become distracted and lose my focus during the competition\*)
  10. It seems that my mind start racing 100 mph during ceritical moments of competition.
  17. I can clear interfering emotion quickly and regain my focus.
  24. I get spacey during competition\*)
  - 31.I find myself thinking of past mistakes or
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- missed opportunities as I play\*)
- 38.My concentration is easily broken\*)

#### Visualization and imagery ability:

4. Before competition, I picture myself performing perfectly.
11. I mentally practice my physical skills.
18. Thinking in pictures about my sport comes easy for me.
25. I visualize working through tough situations prior to competition\*)
32. I use images during play that help me perform better.
39. When I visualize myself playing, I can see and feel things vividly.

#### Motivation:

5. I am highly motivated to play my best.
12. The goals I've set for myself as a plyer keep me working hard.
19. I don't have to be pushed to play or practice hard. I am my own best igniter.
26. I'm willing willing to give whatever it takes to reach my full potential as a player.
33. I get bored and burned out\*)
40. I wake up in the morning and am really excited about playing and practicing.

#### Positive energy:

6. I can keep strong positive emotion flowing during competition.
13. I am able to enjoy competition even when I face lots of difficult problems.
20. I tend to get emotionally flat when things turn against me during play\*)
27. I practice wirt high peositve intensity.
34. I get challenged and inspired in tough situations.
41. Playing this sport gives me a genuine sense of joy and fulfillment.

#### Attitude control:

7. I am a positive thinker during competition.
14. My self-talk during competition is negative\*)
21. I give 100 percent effort during play, no matter what.
28. I can change negative moods into positive ones by controlling my thinking.
35. My coaches would say I heve a good attitude.
42. I can turn crisis into opportunity.

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Note: for favorable items, the score for each answer is as follows: never=1, seldom=2, sometimes=3, often=4, always=5; for unfavorable items (\*), the score for each answer is as follows: never=5 seldom=4, sometimes=3, often=2, always=1.

### 3 RESEARCH RESULT AND DISCUSSION

Table 1: Frequency Distribution of Self-Confidence

No	Category	Frequency	
		Absolute	Relative
1	High	236	51.9%
2	Moderate	200	44%
3	Low	19	4.1%
Total		455	100.0%

Most athletes have self-confidence that is classified as in the high category, which consists of 236 athletes or 51.9%. Meanwhile, the remaining 200 athletes or 41% belong to high self-confidence and 19 athletes or 4.1% belong to low self-confidence. This shows that most of athletes have no doubt about the quality of their personal skills and abilities, feel competent although sometimes still remember past mistakes. Most of athletes have been able to be calm, not easily nervous, and sure they can show their best performance (Komarudin, 2013; Setyobroto, 2001).

Table 2: Frequency Distribution of Negative Energy Control

No	Category	Frequency	
		Absolute	Relative
1	High	79	17.4%
2	Moderate	311	68.3%
3	Low	65	14.3%
Total		455	100.0%

Most athletes have negative energy control which is classified as in the moderate category, which is 311 athletes or 68.3%. Meanwhile, the remaining 79 athletes or 17.4% belong to high self-negative energy controls and 65 athletes or 14.3% belong to low negative energy controls. This shows that some athletes of Universitas Negeri Jakarta still have negative, fearful, or frustrated mindsets (Loehr, 1986). However, some athletes can be more calmed and eliminate negative thoughts by thinking about positive things.

Table 3: Frequency Distribution of Concentration

No	Category	Frequency	
		Absolute	Relative
1	High	119	26.2%
2	Moderate	289	63.5%
3	Low	47	10.3%
Total		455	100.0%

Most athletes have concentrations that are classified as being in the moderate category, which consist of 289 athletes or 63.57%. Meanwhile, the remaining 119 athletes or 26.2% belong to high concentrations and 47 athletes or 10.3% belong to low concentrations. This shows that some athletes of Universitas Negeri Jakarta are still easily disturbed by things that are non-technical both during training and competition, while some other athletes have been able to overcome these disorders and are able to maintain the focus of attention on the environment they face (Weinberg and Gould, 2011).

Table 4: Frequency Distribution of Visualization and Imagery Ability

No	Category	Frequency	
		Absolute	Relative
1	High	238	52.3%
2	Moderate	212	46.6%
3	Low	5	1.1%
Total		455	100.0%

Most athletes have visualization and imagery abilities which are classified as high, which consist of 238 athletes or 52.3%. Meanwhile, the remaining 212 athletes or 46.6% belong to moderate of visualization and imagery ability and 5 athletes or 1.1% belongs to low of visualization and imagery ability. This shows that most athletes of Universitas Negeri Jakarta already have a good mental representation so that they can describe their own movements in a positive and constructive form (Plessinger in Jannah et al, 2016). However, there are still some athletes who still have difficulty imagining their movements in the conditions of a match.

Table 5: Frequency Distribution of Motivation

No	Category	Frequency	
		Absolute	Relative
1	High	304	66.8%
2	Moderate	147	32.3%
3	Low	4	0.9%
Total		455	100.0%

Most athletes have motivation that is classified as high in the category of 304 athletes or 66.8%. Meanwhile, the remaining 147 athletes or 32.3% belong to the moderate motivation and there are 4 people or 0.9% classified as low motivation. Most athletes of Universitas Negeri Jakarta have taken the initiative and determined what they should do, such as getting up early or always eager to practice without coercion (Vallerand and Thill in Vallerand,

2007; Weinberg and Gould, 2011). High motivation is one of the factors that created the achievement of athletes of Universitas Negeri Jakarta so far (Roberts and Kristiansen, 2010; Cucui and Cucui, 2014).

Table 6: Frequency Distribution of Positive Energy

No	Category	Frequency	
		Absolute	Relative
1	High	288	63.3%
2	Moderate	162	35.6%
3	Low	5	1.1%
Total		455	100.0%

Most athletes of Universitas Negeri Jakarta have positive energy which belongs to the high category consisting of 288 athletes or 63.3%. Meanwhile, the remaining 162 athletes or 35.6% belong to moderate positive energy and 5 athletes or 1.1% belong to low positive energy. Most of athletes have been able to control their emotions so they always feel positive emotions. This can be seen from their daily lives which are full of excitement, pleasure, determination, and enthusiasm in the team (Loehr, 1986).

Table 7: Frequency Distribution of Attitude Control

No	Category	Frequency	
		Absolute	Relative
1	High	254	55.8%
2	Moderate	194	42.6%
3	Low	7	1.6%
Total		455	100.0%

Most of athletes have attitude control which is categorized as high consisting of 254 athletes or 55.8%. Meanwhile, the remaining 194 athletes or 42.6% belong to moderate attitude control and 7 athletes or 1.6% belong to low attitude controls. Most athletes of Universitas Negeri Jakarta are able to maintain their attitudes and behavior both during daily practice and during the competition so that it is in accordance with social norms (Berk in Gunarsa, 2004). They are also able to return negative situations to be positive.

Based on the results of data processing, it is known that the majority of athletes of Universitas Negeri Jakarta have mental skills which are classified as high category or 49.9% (227 athletes), while 49% (223 athletes) belong to the moderate category and 1.1% (6 athletes) belong to the low category.

## 4 CONCLUSION

Based on the results of the study, several things can be concluded as follows: 1) the majority of students in university have the high of mental skills level; 2) Five aspects of mental skills that are good enough for most college athletes, namely: self-confidence, visualization and imagery ability, motivation, positive energy, and attitude control, this is because most athletes belong to the high category; 3) Two aspects of mental skills that still need to be developed in the majority of college athletes, namely: negative energy control and concentration, this is because most athletes are still in the moderate category.

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