

Comparison of Mental Imagination Skill of Male and Female Athletes of Individual and Team Athletic Fields

¹Reza Rezaee Shirazi, ¹Amir Dana, ²Firozeh Jalili, ³Fatemeh Behzadi

¹Department of physical Education, Aliabad Katoul Branch, Islamic Azad University, Aliabad Katoul, Iran.

²Department of physical Education, Yazd Branch, Islamic Azad University, Yazd, Iran.

³Department of physical Education, Ayatollah Amoli Branch, Islamic Azad University, Amol, Iran.

Abstract: Aim: aim of current research was comparison of intrinsic and extrinsic imagination skills of male and female athletes of individual and team athletic fields of Golestan Province. Method: method of this study was semi empirical field study which was conducted by questionnaire. Statistical universe of this study was all male and female athletes of Golestan province. 170 of total including 105 male and 65 female were chosen randomly. In this study for considering intrinsic imagination skill VMIQ questionnaire and for extrinsic imagination VVIQ questionnaire was used. Results and findings: results of t test indicated that: 1- there is significant difference between intrinsic imagination skill of male and female athletes of team athletic fields and males are better in intrinsic imagination.($p < 0/05$) 2- there is significant between extrinsic imagination skill of male and female athletes of individual athletic fields and males have higher extrinsic imagination skill.($p < 0/05$) 3- extrinsic imagination of male and female athletes of team fields was significantly higher than individual fields.($p < 0/05$) 4- intrinsic imagination skill of individual field was significantly higher than team fields.($p < 0/05$). Discussion and conclusion: These findings are discussed according to higher imagination skills of males compared to females and also nature of different athletic fields.

Key words: Intrinsic and extrinsic imagination skills- male and female athletes of individual and team fields.

INTRODUCTION

Undoubtedly the most important factor in learning motor skills is improving characteristics or factors of physical and motor preparation. Factors of physical preparation such as power, speed, etc and motor factors such as agility, balance, etc are necessary skills or characteristics for achieving special motor skills. Although physical exercise is most common way of practicing skill or physical capacity, this kind of practice requires using proper athletic facilities and environment (Bahrami, 2006). Mental imagination is one of psychological methods in which one uses imagination for creating a performance in mind. Such an imagination has an effect similar to creating neuro impulse which is created during real performance (Hemayat, 2008). Along with learning skills and reaching to higher levels in performance, creating proper coordination between mind and body become important. Physical psychologists have discussed importance of attention and thinking control. Individuals benefit from methods such as imagination which is broadest method in this context. Many studies recently have increased scientific insight in relation to mental imagination. One of the aspects of imagination which is increasingly focused is its effect on performing athletic skills (Bohan, 1999; Epstein., 1980). Studies of Feltz indicated that mental techniques are the most common techniques in improving athletics performance (Feltz., 2007).

Nowadays talent-finding process in athletes is used increasingly for recognizing potential capacities. In this process, different athletic field professionals, according to certain parameters, choose individuals who have the capacity of reaching high level of championship. It's considerable that parameters used by professionals are usually physical indicators and psychological indicators are less considered. Although usually variants related to physical structure and skill are requirements of reaching top of performance and are good predicting tool for later performance, recognition of psychological variants for success in a special afield is very important. In other words, without considering motivational factors in individuals and only with having physical indicators

Corresponding Author: Reza Rezaee shirazi, Department of physical Education, Aliabad Katoul Branch, Islamic Azad University, Aliabad Katoul, Iran.
E-mail: rezaii725@yahoo.com

which are main goal of championship athlete, achieving to goals of talent-finding process is impossible (Shahrian, 1997; Hall, 1985). Probably that's why often trainers are challenging with this problem that some athletes despite of having all physical characteristics required for good performance don't have enough motivation for success.

Actually this question indicates that having capacities such as running fast, running better etc are in one hand and mental preparation for using these capacities is on the other hand. According to psychologists' idea, athletes should have psychological skills in addition to several athletic, Physical and skill capacities in order to actualize their potential capacities (Sohrabi, 2006).

One of the psychological indicators that have a great effect on individuals' athletic performance is mental imagination. Mental imagination includes cognitive review of skill in absence of body movement. This mental technique helps athletes in improving learning, attention, and self-confidence, strategic practicing for matches and keeping preparation while being tired and injured (Martin, 1995). Orlik and Parrington showed that important elements of success include obligation, quality of exercise, focus and refocus before competitions (Orlick, 1988). Athletic psychologists have tried to measure level of self-confidence and mental imagination skill of athletes and find its relation to success or fail of athletes. So this issue indicates that level of mental skills of athletes is different. In other word, some athletes have better imagination skill and this skill can affect their success in competitions.

Now given to different imagination ability, it seems that this issue has different uses in different athletic fields. Given to consideration of previous studies and advantages of intrinsic and extrinsic imagination and with considering this individual variance and useful differences of this variance in different athletic fields we have tried to answer following questions: are variances of intrinsic and extrinsic imagination skills different in athletes of individual and team fields? And if so, which athletes have higher imagination skill?

Method:

Method of study was descriptive-comparative and field study through questionnaire or gathering data was used.

Statistical Universe:

Statistical universe of this study was all male and female athletics who participated in individual and team championship competitions of country 1386 in Golestan province.

Statistical Sample:

105 male and 65 female from athletes of individual and team fields (111 team athletes and 59 individual athletes) were chosen.

Measurement Tools:

1. VMIQ Questionnaire:

This questionnaire which was used for measuring intrinsic imagination ability of testees includes 24 motor imagination activities. Validity of this questionnaire was considered by Isaac and $r=0/76$ was obtained (Hemayat, 2008).

2. VVIQ Questionnaire:

This questionnaire which was used for measuring extrinsic imagination ability of testees includes 16 visual imagination activities. Validity of this questionnaire was considered by Isaac and $r=0/75$ was obtained. In Isaac considerations mean of VVIZ and VMIQ for individuals with high imagination was 1/64 and for individuals with low imagination was 3/2 (Hemayat, 2008).

Method of Performing Research:

After arranging with related athletic council, questionnaires were distributed among testees in location of their exercise. After gathering questionnaires, they were analyzed to determine scores related to intrinsic and extrinsic imagination skill of each testee.

Analysis Method and Statistical Analysis:

In this study descriptive statistics include mean, standard deviation etc was used for summarizing and categorizing information. Then for comparing mean of groups statistical t test was used.

RESULTS AND DISCUSSION

1. Intrinsic and Extrinsic Imagination Ability of Testees:

Mean and standard deviation of athletes' imagination skill is shown in table 1 and Fig1.

Table 1: Descriptive statistics related to intrinsic and extrinsic imagination skill of testees.

| | min | max | mean | Standard deviation |
|------------------------------|------|------|--------|--------------------|
| Individual-intrinsic(male) | 1/42 | 2/87 | 1/2 | 0/0829 |
| Individual-extrinsic(male) | 1/39 | 4/55 | 3/293 | 1/9285 |
| Team- intrinsic(male) | 1/29 | 4/41 | 2/4912 | 0/8395 |
| Team-extrinsic(male) | 1/24 | 2/40 | 1/2939 | 0/23944 |
| Individual-intrinsic(female) | 1/35 | 2/7 | 1/487 | 0/4080 |
| Individual-extrinsic(female) | 1/29 | 4/47 | 3/160 | 1/8641 |
| Team- intrinsic(female) | 1/26 | 4/36 | 2/36 | 0/2654 |
| Team-extrinsic(female) | 1/20 | 2/3 | 1/119 | 0/65489 |

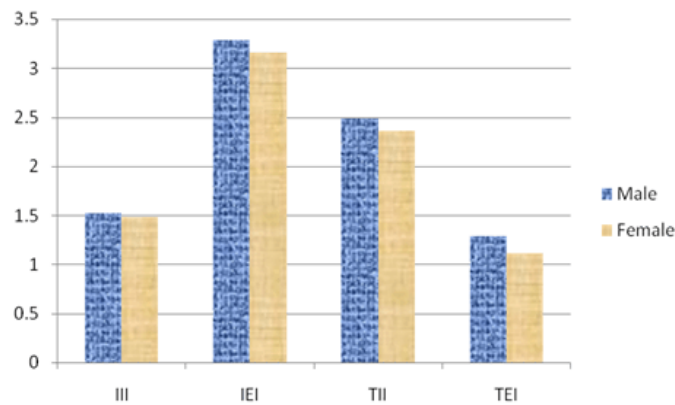


Fig. 1: Comparison of imagery ability in male and female athletes.

III = Individual Internal Imagery

IEI = Individual External Imagery

TII = Team Internal Imagery

TEI = Team External Imagery

Comparing Mean of Intrinsic and Extrinsic Imagination:

Results of statistical test indicated that:

1. There is significant difference between intrinsic imagination skill of male and female athletes of team athletic fields and males are better in intrinsic imagination.($p < 0/05$)
2. There is significant between extrinsic imagination skill of male and female athletes of individual athletic fields and males have higher extrinsic imagination skill ($p < 0/05$).
3. Extrinsic imagination of male and female athletes of team fields was significantly higher than individual fields ($p < 0/05$).
4. Intrinsic imagination skill of individual field was significantly higher than team fields ($p < 0/05$).

Discussion and conclusion:

Aim of current research was comparison of intrinsic and extrinsic imagination skills of male and female athletes of individual and team athletic fields of Golestan Province. As results indicated the ability of intrinsic and extrinsic imagination of males was higher than females which is consistent with results of Shahrian, Navabi nejad *et al*, (1997) Hall *et al* (1380) but isn't consistent with results Hall *et al* (1985). Also results indicated that ability of intrinsic imagination of athletes individual fields is higher than team athletes and extrinsic imagination skill of team athletes is higher than individual athletes which is consistent with findings of Yusefi and Grouios *et al* (1992). also results of study indicated that intrinsic imagination skill of individual fields was higher than intrinsic imagination skills of team fields which is consistent with finding of Shahrian, (1997) Blair, (1993) Hall and Epsteinl (1992).

As results of study indicates ability of intrinsic imagination of athletes of individual fields was higher than athletes of team fields which can be caused by nature of these kinds of athletic fields and by more practice of these athletes for imagination. Also results of this study indicates that ability of extrinsic imagination of

athletes of team fields is higher than athletes individual fields which might be because of nature of their athletic field.

Hall *et al* mentioned that volleyball players use extrinsic imagination for placing out of their own body and viewing their own play from out view and these findings is consistent with findings of current study (Hall, 1992).

But our main issue in using findings of this study is finding potential capacities which is one of the unwritten aims of this study in using mental tools including imagination skill in choosing individuals for certain athletic fields. As results of this study indicates mean of intrinsic and extrinsic imagination skill of team and individual athletes is in a relative high level. Also in individual athletes intrinsic imagination skill is higher than extrinsic imagination skill and it's better to consider intrinsic imagination skills in addition to physical factors in choosing individuals for individual fields. Also extrinsic imagination skills of team athletes are higher and it's better to consider extrinsic imagination skills in addition to physical skills in choosing individuals for individual fields.

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