

A STUDY OF INTELLIGENCE, OF MALE AND FEMALE FOOTBALL PLAYERS OF MADHYA PRADESH

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ABSTRACT

The objective of the present study is to assess the effect of spatial awareness and visual motor coordination on the skill ability of intercollegiate male kabaddi players. To conduct the study 100 intercollegiate male kabaddi players were selected. The average age of these subjects was 21.91 years and they represented their respective colleges in intercollegiate kabaddi tournaments organized in Chhattisgarh state. Purposive sampling was used for the selection of subjects. To assess spatial awareness in male intercollegiate kabaddi players of Chhattisgarh, a test standardized by Cesaroni (2007) was used. Reaction time in selected intercollegiate male kabaddi players was recorded with the help of Nelson's simple reaction time test. A mirror drawing test was used to assess the hand-eye coordination of male intercollegiate kabaddi players. The apparatus designed by Johnson and Nelson (1974) was used for the assessment of depth perception. The skill ability of the selected intercollegiate male kabaddi players was judged through the subjective ratings of three judges. Results reveal a significant impact of spatial awareness, reaction time, hand-eye coordination, and depth perception on the skill ability of male intercollegiate kabaddi players with all these variables accounting for 33.4% variance. Based on the results, it may be concluded that spatial awareness and visual motor coordination namely reaction time, hand-eye coordination, and depth perception plays a significant role in determining the skill ability of male kabaddi players. It may also be concluded that spatial awareness and visual motor coordination need special attention while preparing a training plan to enhance the skill ability of the male kabaddi players.

Keywords: Spatial awareness, visual and motor coordination, skill, kabaddi

1. INTRODUCTION

The participation in Sports contributes to building up self confidence, enhance intellectual level, personality development and outgoing tendency or extraversion as such proficiency leads to enhanced success in sports activities which is highly valued in one's group. Human life is a complex of physical, intellectual, emotional and social development patterns sports and physical activities are integral parts of these patterns. People compete in sports because of the opportunity provided to evaluate their competence in interacting with one's environment. Competition provides people of all levels of ability .with the opportunity to seek out there enforcements attractive to them and gain certain measures of self- evaluation (Sinha.1986).

Cognitive and general psychological abilities such as intelligence, personality characteristics, concentration, reaction time, motivation, will power, anticipation etc. play a pre-dominant role in various sports activities. (Puni, 1980; Macgillivary, 1980; Schobet, 1981)

Intelligence is a term which is so commonly used and yet rather difficult to define in a precise and generally accepted form. This difficulty of definition is not perhaps because in recent years psychologists have gathered so much material about it by the use of intelligence tests that we find it difficult to adopt a simple and comprehensive meaning of the term. Intelligence basically should not be confused with intellect though it is related to intellect or knowledge. It is quite possible (though it may not happen often that a man with a high degree of intelligence may be poor in intellect simply for the reason he never attempted to use his intelligence and build up his intellect (Boaz,1957).

Every man is intelligent in his own usual self because his correct response to a given situation in it, self shows his basic intelligence. Again it doesn't mean that he may give a correct response to each and every situation being exposed to him. Thus we can give a statement that every individual has basic intelligence but in varying degree. This degree is what psychologists have been trying to find out, so that they can categorize certain category of people. It is very fortunate that to a great extent they have managed to do it. What we call intelligence may express itself in a number of ways. The elementary school teacher describe a youngster as bright, if he learns his lesson easily; the machine shop foreman calls an apprentice "a promising young fellow he is apt and skillful with his hands. The teacher, foreman would agree that what they are representing is efficient which is to say, intelligent behavior. Efficiency in meeting everyday situations or solving every day problems is perhaps as useful a working definition of general intelligence as a any (Garret,1961).

The term 'intelligence' comes from a Latin Word coined by Cicero to cover all cognitive processes. It was assumed that this capacity of cognition was something inherent in human nature (and possibly in animals). It was recognized that every man was born with a general cognitive capacity which was conveniently termed intelligence. Just like the concept of energy In physics, the term intelligence also is only a convenient label to designate a cognitive ability which is innate and general. Spencer regarded intelligence as a capacity of organism to adjust itself to an complex environment (Boaz,1957).

The Intelligence involves three characteristic qualities of one's behavior: (a) the tendency to take and maintain a definite direction, (b) the capacity to make adaptations for the purpose of obtaining a described goal, (c) the power of auto criticism(Boaz,1957).

It is not necessary that one should define intelligence only within the limitations of the above categories. Most psychologists will agree that intelligence involves all the three abilities mentioned above and perhaps even something more, intelligence is some kind of ability which characterizes one's

manner of dealing with his environment and his problems. Intelligence is a useful capacity for furthering our welfare. In the civilized world, a great price is set on intelligence(Boaz,1957).

Efforts have also been made to correlate scores from standardized intelligence tests with athletic performance. Usually the results have been contaminated by the fact that athletes come from various socio-economic groups from many countries of the world; thus, previous and present educational opportunities make the interpretation of relationships between intelligence quotients and athletic performance difficult.

The field of intelligence is slowly spreading its tentacles into other fields where human interaction with the environment is more. Sports is another such field where intelligence is required to a greater extent. But unfortunately the study in this field in relation to intelligence is still raw, researcher's are still groping around in darkness. How much intelligence does a sportsman need to come out of a critical situation ? or, what level of intelligence will effect performance ? or, which game needs more intelligence ? or how much does experience effect the increase in intelligence ? or, Is there a relation between theoretical intelligence and practical intelligence ? etc., are some of the questions which need an immediate reply. In an acyclic event the players confront situations which need split second decisions, here the individual's intelligence or understanding of the game helps.

In the present days, every individual feels the importance of educational values in their life. In the process of education, many people follow the concept of education. They think that literacy and theoretical knowledge is the only channel of education, where as, education includes the mental, physical, social, spiritual, intellectual and economical etc., dimension to the process of learning the education.

The role of education is very much important in the society of human beings in its varied dimension to the life. The education has different aspects to carried with the educational schedule. The development and maintenance of various allied aspects to the education may prove very much important because they have their own purpose and identity to the concept of overall development of a child. Each educational system and educationists refer to the overall development of child, which may be denoted as: mental development (cognitive development), physical and physiological development (non-cognitive development), social development, intellectual development, spiritual and economical development etc.

The education means the modifications in behavior. This statement peruse to the various alteration and modification which may be conducted with the help of education, environment and teaching or training. The education may only be achieved, when the various body systems engaged and involved in a coordinative and systematic form. The educational concept of all-round development of a human being refers to various dimensions in which the physical dimension plays an important role to provide the practical shape to the education process.

Sports and physical education are an integral part of the learning process and will be included in the evaluation of performance. A nation wide infrastructure for physical education, sports and games will be built into the education edifice". The infrastructure will consist of play fields, equipment, coaches and teacher of physical education as part of the school improvement program. Efforts will be made to establish sports institutions and hostel where specialized attention will be given to sports activities and sports - related studies along with normal education Aggarwal, (1992).

The purpose of the study was to assess and compare the intelligence, academic achievement and personality factors of gymnasts at different levels of their participation.

2. METHODOLOGY

2.1 Selection of Subjects

The sample of this research consists of three hundred (one hundred and fifty male and one hundred fifty female) football players studying in the 11th grade of different high schools in M.P. was chosen as the subject of this study. All samples were taken from 15 M.P. schools. The subjects were selected from male and female student -athletes competing in different sports. The random sampling design was used by the investigator to test the

2.2 Selection of Variable

By determining the importance of selected Intelligence for male and female athletes, the opportunity to collect information about brain factors was chosen:

2.3 Description of Questionnaires

To determine the need and importance of intelligence in performance, Verbal Intelligence Test (V.I. T.) prepared and standardized by Ojha and Chowdhury , (2006) was selected to measure intelligence ability of Indian gymnasts at their different levels of participation. It is an objective type Intelligence test consists of 112 statements related to general mental ability. The test has been divided into 8 parts in which classification (15), Analogies (15), Synonyms (20), Number Test (12), Completion (04), Paragraph Test (10), Best Reason (19) and simple reasons (07) related questions has given. Each question carried one mark for correct answer. To determine the intelligence groups, range of total sum of raw scores of 8 category responses denote the classified intelligence groups i.e. very superior (above 107score), Superior (99-106) , Bright Normal (91-98), Normal (73-90), Dull-Normal (65-72), Borderline (57-64) , and Defective (below 56). The specimen copy of this test is given in the appendix. The scoring of the completed questionnaire was done according to the method mentioned in the Manual of Verbal Intelligence Test. The reliability of the test were 0.81 (V.I.T-1), 0.86 (V.I.T-2), 0.71 (V.I.T-3), 0.74 (V.I.T-4), 0.64 (V.I.T-5), 0.58 (V.I.T-6), 0.79 (V.I.T-7), 0.75 (V.I.T-8), 0.87 (V.I.T-over all) by split half method and reliability of the test were 0.89 (V.I.T-1), 0.88 (V.I.T-2), 0.73 (V.I.T-3), 0.88 (V.I.T-4), 0.68 (V.I.T-5), 0.79 (V.I.T-6), 0.81 (V.I.T-7), 0.83 (V.I.T-8), 0.91 (V.I.T-over all) by Kuder Richardson Formula.

2.4 Statistical Analysis

To assess the Intelligence abilities of male and female Indian Gymnasts at three different levels namely State, Interuniversity and National level, Means (Rothstein, 1985) and Standard Deviations (Clarke and Clarke, 1972) were computed for male and female gymnasts for all the levels and on each level separately.

3. FINDINGS

To assess the academic achievement, intelligence and four personality characteristics of male and female Indian gymnasts at three participation levels, means and standard deviations and multivariate analysis of variance (MANOVA) with independent factors of participation level and sex on three different dependent variables for all the subjects taken together and separately for both the sexes and each level were computed and data pertaining to this have been presented in table 1 to 8.

TABLE 1
DESCRIPTIVE STATISTICS OF INTELLIGENCE AMONG MALE AND FEMALE STUDENT-SPORTSPERSONS IN HIGHER EDUCATIONAL INSTITUTIONS ACROSS MADHYA PRADESH

S.NO.	Variable	Male Sportsperson		Female Sportsperson	
		Mean	SD	Mean	SD
1	Intelligence	51.14	13.83	52.92	14.97

Figures 1 depict the mean intelligence scores of both student- sportspersons enrolled in different higher secondary schools across Madhya Pradesh across various school courses. These figures provide valuable insights into the academic achievement of students in the region, shedding light on any potential gender-based variations in intelligence scores among sportspersons. Analyzing these data can help educators, policymakers, and researchers make informed decisions and develop strategies to support the academic success of students in Madhya Pradesh.

Figure 1

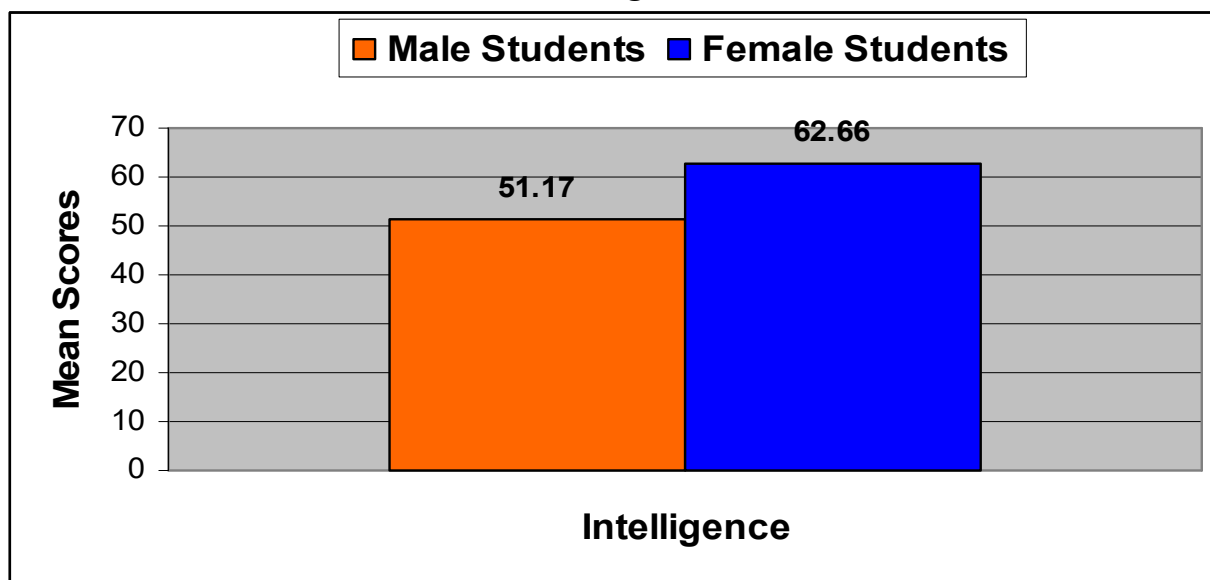


TABLE 2
GENDER-BASED DISPARITIES IN INTELLIGENCE SCORES AMONG STUDENT-ATHLETES IN DIFFERENT HIGHER EDUCATION INSTITUTIONS ACROSS MADHYA PRADESH

Variable	Sex	M	MD	σ DM	t-ratio
Intelligence	Male	51.88	1.43	1.48	0.966
	Female	53.31			

Significant at .05 level ,
 $t_{.05 (298)}=1.97$.

Table 2 reveals the insignificant compelling statistical evidence to suggest a significant disparity in intelligence in between both gender sportspersons from secondary higher schools when considering the dataset as a whole. This conclusion is drawn from an analysis of the obtained t-value, which stands at 0.966, falling below the critical $t_{.05 (298)}$ threshold of 1.97.

4. CONCLUSION

Intelligence scores among students in Madhya Pradesh are similar, indicating that gender does not play a significant role in the intelligence gap in the dataset.

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