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A comparative study of personality traits and sports performance between junior and senior level basketball players of Delhi

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Abstract
This study is aimed at to know the personality traits of basketball of junior and senior level players and relation with sports performance. Through this study we try to know the various personality traits like neuroticism, extroversion, social desirability and psychoticism affect the performance of the player of basketball who have participated at state, national, and inter university championship. This study has been done on 60 basketball players who are practicing at various centers at New Delhi. Their performance was assessed and points were given by three experts who are the qualified coaches working in sports authority of India. And the marks of certificates were given. In this study the questionnaire was filled by different junior and senior level basketball players. The statistical analysis was done by applying the mean, standard deviation, Pearson's correlation, and ANOVA to get the results.

Keywords: Neuroticism, extroversion, social desirability, psychoticism, personality traits

Introduction
The study of personality traits is key to the understanding of violent behavior; although it is a complex and controversial aspect of psychological assessment. Today many outlets and coaches look to sport psychology for a sports competitive edge by seeking psychological traits and training programme in order to learn among other thing. It also emphasize on way to manage, competitive stress, central concentration, improve confidence and increase communication skill and better harmony. The sport of basketball, where young people compete in a safe, tightly controlled environment which promotes qualities such as self-defense, self-discipline and respect. No matter how skillful or fit a player might be physically, this will count for nothing if the player is not prepared mentally and developed the traits. This study is aimed at to know the psychological traits of basketball player.

Recently, De Young et al. (2007) [1] to clarify this literature by reconciling two dominant methods of inquiry in trait psychology: the psychometric approach-where personality scales, dimensions, or factors are uncovered by data reduction at the item- (Costa & McCrae, 1992) [2] or adjectival- (Goldberg, 1990, 1993) [3] level-and the genetic approach-where the presence of traits is uncovered through an analysis of monozygotic twins (Krueger, 2000) [4] or neuropsychological analysis (Kumari, Ffytche, Williams, & Gray, 2004) [5] De Young et al. developed a 10-facet lower-order trait taxonomy (two facets for each Big Five trait).

Personality is more or less stable and enduring organization of a person's character temperament, intellect, & physique, which determine his unique adjustment to the environment. (RB. Eysenck, 1971) [6]. The personality traits, mental qualities and type of personality also required for the sports competition. It can be concluded that personality is a dynamic, inherited traits & characteristics, environmental effects, interaction between genetic potential & environment forces, a integrated aspect- body, mind, intelligence, spirit, culture and society. This study is based on the personality traits assessment of different level of Indian basketball players through personality. For that purpose a personality assessment questionnaire, Eysenck personality questionnaire-revised (EPQ-R) was used which is constructed by psychologists Hans Jürgen Eysenck and Sybil B. G. Eysenck. It consist 48 statements/questions.

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These personality traits are measured in the study using the short revised version of the Eysenck Personality Questionnaire-Revised scale requiring "Yes/No" answers, the EPQ-R contains simple questions such as, " Are your feelings easily hurt?", "Do you enjoy meeting new people?", and "Do good manners and cleanliness matter much to you?" Groups of questions load onto each of the above facets of personality - neuroticism, extroversion psychoticism and social desirability. There are 12 items for each of neuroticism, extraversion, psychoticism and social desirability, each scored 0 or 1. Items are then totaled out of a maximum of 12 for each subscale.

The reported alpha reliabilities for the extroversion and neuroticism scales are high (>0.80) while that of the psychoticism scale is not as high, but satisfactory (>0.60) Test retest reliability for the scale is >0.70. In the 2001 study, the alpha coefficients were similarly high for the extroversion and neuroticism scales as 0.88 and 0.81 respectively but rather low for the psychoticism scale 0.46.

Four personality traits which are stated in this questionnaire are as follows-

1. **Neuroticism:** Neuroticism refers to general emotional instability and the individual's predisposition to neurotic breakdown under stress. An enduring tendency to experience negative emotional state, such as anxiety, anger, guilt and depression.
2. **Extraversion:** It indicates how outgoing and social a person is. A person who scores high in extraversion on a personality test is the life of the party. They enjoy being with people, participating in social gathering and are full of energy.
3. **Psychoticism:** Psychoticism is defined as a personality type that is prone to take risks, might engage in anti-social behaviours, impulsiveness, or non-conformist behaviour.
4. **Social Desirability:** Social desirability bias is a social science research term that describes the tendency of survey respondents to answer questions in a manner that will be viewed favourably by others.

Objective of the study: The purpose of this study was to know and compare the personality traits of junior and senior level basketball players of Delhi in relation to their sports performance in different level of basketball competition.

Methodology: The selections of subjects for the purpose of this study sixty basketball players were randomly selected from the various training centers and from National, Interuniversity and state level basketball competitions. They are practicing at various basketball centers in New Delhi. Twenty players were selected from each level of competition. The ages of the players were between 16 and 20 years.

Variables: The dependent variable selected was the sports performance of the basketball players. The independent variable of Personality Traits measured such as- Neuroticism, Extroversion, Psychoticism and Social desirability.

Criterion measures/tools administration: To assess the personality of junior and senior level basketball players, the Personality traits as variable were selected measured with the help of Eysenck personality questionnaire revised EPQ-R, which was constructed and developed by psychologists Hans Jürgen Eysenck and Sybil B. G. Eysenck. It consist 48 statements/ questions. 12 for each of the traits of neuroticism, extraversion, psychoticism and social desirability or lie scale. Each question has a binary response, 'yes' or 'no'. Each dichotomous item was scored 1 or 0, and each scale had a maximum possible score of 12 and minimum of zero. The questionnaire used in the study was of Hindi version for better understanding to the subjects. The performance of the basketball players had been assessed by the three experts and their points of certificates would also assess in aggregate score.

The design of study was a survey type of research design applied on competitive basketball players. The survey for the purpose of this study has been done at different basketball training centers and competitions in the month of November 2016. All the 60 basketball players, who have been selected as subjects were asked to fill the selected questionnaire. Their performance was assessed by a panel of three expert's coaches of basketball.

Collection of Data: The data had been collected on selected variables with the help of standardized questionnaire to measured personality traits from national, inter-university and state level basketball players. A panel of three experts was formed to assess the performance of basketball players. Experts are the qualified coaches from NIS and working as basketball coach at various centers of sports authority of India. The performance was judged out of 10 marks.

Statistical Analysis: To compare the personality traits of junior and senior level basketball players the, mean, standard deviation, and Independent sample T- test has been used to analyze the data and get the result. The descriptive statistics was also calculated.

Results: The data were compiled and processed for statistical calculation using SPSS-20 version package software to calculate different variables (four personality variables such as- psychoticism, neuroticism, extraversion and social desirability) in this questionnaire and basketball performance.
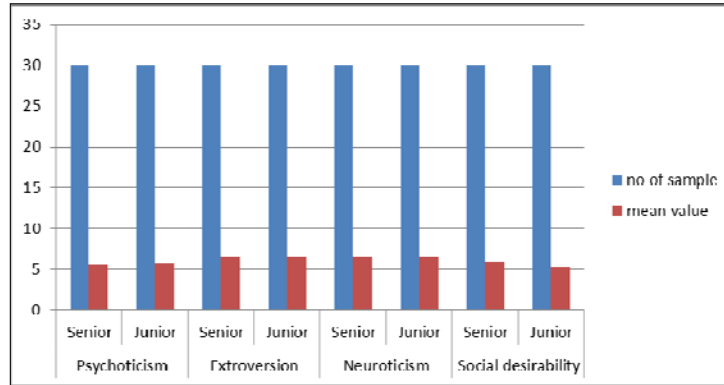
Table 1: Group Statistics

	Category	N	Mean	Std. Deviation	Std. Error Mean
Psychoticism	Senior	30	5.6000	1.79271	.32730
	Junior	30	5.8000	1.84578	.33699
Extroversion	Senior	30	6.4667	1.59164	.29059
	Junior	30	6.5667	1.33089	.24299
Neuroticism	Senior	30	6.5667	1.50134	.27411
	Junior	30	6.5333	1.33218	.24322
Social desirability	Senior	30	5.8667	2.28539	.41725
	Junior	30	5.3000	2.21515	.40443
Performance	Senior	30	24.5000	3.29838	.60220
	Junior	30	24.2000	3.31558	.60534

Table 1- Group statistics
Table 1 is the group statistics table that revels that the mean value is found higher (6.5667) of Neuroticism in senior category and extroversion in junior category. As far as lower mean is concerned it found in social desirability (5.3000) in junior category. Rest of the variables mean value is mentioned here Psychoticism 5.6000 in senior category and 5.8000 in junior category. Extroversion 6.4667 in senior category. Social desirability 5.8667 in senior category.
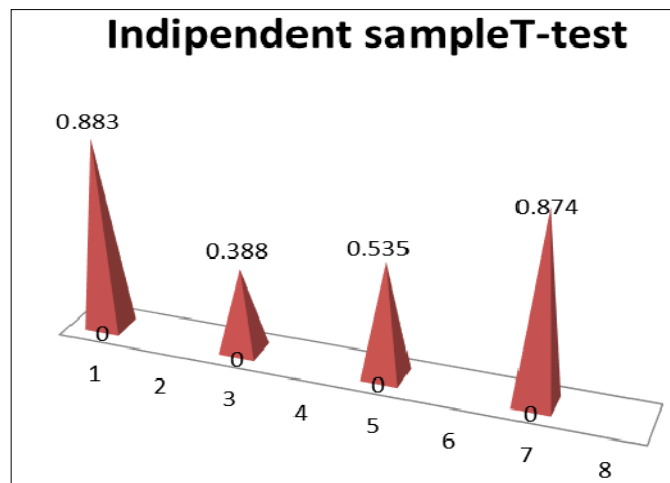
Graphical presentation

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Psychoticism	Equal variances assumed	.022	.883	-.426	58	.672	-.20000	.46978	-1.14036	.74036
Extroversion	Equal variances assumed	.755	.388	-.264	58	.793	-.10000	.37880	-.85824	.65824
Neuroticism	Equal variances assumed	.390	.535	.091	58	.928	.03333	.36646	-.70021	.76688
Social desirability	Equal variances assumed	.025	.874	.975	58	.334	.56667	.58109	-.59651	1.72984
Performance	Equal variances assumed	.036	.851	.351	58	.727	.30000	.85386	-1.40919	2.00919

Table 2 Independent sample T-test
Table 2 Independent sample T-test revels that there is no significant difference is found between both the categories as we can see that value for of Psychoticism is .883 which is not significant at 0.01 - 0.05 level. Extroversion the P value is .388 which is not found significant at 0.01-0.05 level. Neuroticism's P value is .535 which is not significant at 0.01-0.05 level. As far as social desirability is concerned the P value of this variable is .874 which not significant at 0.01-0.05 level. So it can be said that there is not any significant difference between both the categories i.e. junior category and senior category. May be the age difference is not much between both the categories and the level of skill is same and the learning environment is same that is why there is not significant differences found between both the categories.

Conclusion
Under the conditions of the present study and within the limitations imposed by the type of subjects and the variable selected for this study, it may be concluded that there are no significance differences is found when descriptive statistics is applied where we have calculated the mean value and second statistical analysis we have used is Independent sample T- test was applied where we have calculated the P value of among all

the variables .i.e. psychoticism, extroversion, neuroticism, social desirability and basketball performance used in present study. It signifies that this level of the basketball players found similar in personality traits. For this conclusion the following reason can be assumed.

1. There is no big difference in age between both the categories.
2. The practice environment may be same for both the categories.
3. The infrastructure of playing facilities may be same for the categories.
4. The level of coaches may be the same for both the categories.

Keeping in mind the statistical analysis and the values gained through calculation it is concluded that there is no significant differences found between both the categories. And there is no any significant effect of these personality traits on performance of basketball players on Delhi in both junior and senior categories.

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