

Differences of Mental Skill between Racket and Combat Sports: A Psychological Probe

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ABSTRACT

Study aim: The purpose of the study was to find out the significant differences between racket and combat sports with regards to variable mental skill.

Material and Methods: Seventy-four players were selected as subjects for the purpose of this study. The participants participated in the study voluntarily and all the subjects were also informed about the objective and protocol of the study. Mental Skill questionnaire constructed by Hardy and Nelson (1996) was used followed by sub-variables (viz., Imagery ability, Mental preparation, Self-confidence, Anxiety and worry management, Concentration ability and Relaxation Ability).

Statistical Applications: Unpaired t- test was used for the purpose of this investigation. The level of significance was set at 0.05. The statistical techniques were used to analyze the data on Statistical Package for Social Science (SPSS) version 26.0.

Results: Imagery ability: The absolute value of the calculated is smaller than critical value (0.0983), so the means are not significantly different. Mental preparation: The calculated value is smaller than critical value (0.2702), so the means are not significantly different. Self-confidence: The absolute value of the calculated exceeds the critical value (2.3434), so the means are significantly different. Anxiety and worry management: The absolute value of the calculated is smaller than critical value (1.4444), so the means are not significantly different. Concentration ability: The absolute value of the calculated is smaller than critical value (0.6554), so the means are not significantly different. Relaxation ability: The absolute value of the calculated is smaller than critical value (0.45), so the means are not significantly different. Mental Skill: The absolute value of the calculated is smaller than critical value (1.6189), so the means are not significantly different.

Keywords: Mental Skill, Racket Sports, Combat Sports, Imagery Ability, Mental Preparation, Self- Confidence, Anxiety And Worry Management, Concentration Ability, Relaxation Ability.

INTRODUCTION

Sports psychology flourished in the early 20th century. The period from 1950–1980 saw rapid strides in sports psychology, with Franklin Henry establishing this field of study as independent of physical education in the landscape of American and eventually global sports science and kinesiology graduate programs [1].

In addition to academic journals, several comprehensive edited text books have been produced detailing sports psychology developments across the world, such as Hanrahan and Andersen's (2010) Hand book of Applied Sports Psychology [2], Schinke, Mc Gannon, and Smith's (2016) International Hand book of Sports Psychology [3], and Bertollo, Filho, and Terry's (2021) Advancements in Mental Skill Training [4] to name just a few. In short, sports psychology is global in both academic study and professional practice. The psychology of sports and physical exercise is a scientific discipline that focuses on the study of people behaviors in the context of sports and physical activities [5].

Addition, it includes the application of psychological theories to understand and optimize the performance, mental processes, and wellbeing of these people [6]. In particular, the discoveries linking mental aspects and athletic performance originated almost simultaneously with those of psychology [7, 8].

MATERIAL AND METHODS

Participants

Seventy-four male players were selected as subjects for the purpose of this study. The participants participated in the study voluntarily and all the subjects were also informed about the objective and protocol of the study. The informed consent of participants was not conducted or granted in this study because all participants' privacy and personal identity information were maintained. Mental Skill questionnaire constructed by Hardy and Nelson (1996) was used followed by sub-variables (viz., Imagery ability, Mental preparation, Self-confidence, Anxiety and worry management, Concentration ability and Relaxation Ability).

Statistical Applications.

Unpaired t-test was used for the purpose of this study. The level of significance was set at 0.05. The statistical techniques were used to analyze the data on Statistical Package for Social Science (SPSS) version 26.0

RESULTS

Table-1: Unpaired T-Test Results Concerning Mental Skill (Viz., Imagery Ability, Mental Preparation, Self-Confidence, Anxiety And Worry Management, Concentration Ability, Relaxation Ability And Mental Skill)

Imagery ability		
	<i>Racket Sports</i>	<i>Combat Sports</i>
Mean	13.7667	13.9091
Stand. Dev.	6.1789	6.0783
n	30	44
t	0.0983	
t < critical value	□	no sig. diff.
Mental preparation		
	<i>Racket Sports</i>	<i>Combat Sports</i>
Mean	14.9	14.5
Stand. Dev.	5.7986	6.5418
n	30	44
t	0.2702	
t < critical value	□	no sig. diff.
Self-confidence		
	<i>Racket Sports</i>	<i>Combat Sports</i>
Mean	15.7667	18.2045
Stand. Dev.	5.0444	3.8939
n	30	44
t	2.3434	
t > critical value	□	there is sig. diff.
Anxiety and worry management		
	<i>Racket Sports</i>	<i>Combat Sports</i>
Mean	11.9333	13.4773
Stand. Dev.	4.7324	4.3614
n	30	44
t	1.4444	
t < critical value	□	no sig. diff.
Concentration ability		
	<i>Racket Sports</i>	<i>Combat Sports</i>
Mean	12.1667	12.9318

Stand. Dev.	4.9131	4.9424
n	30	44
t	0.6554	
t < critical value	<input type="checkbox"/>	no sig. diff.
Relaxation ability		
	<i>Racket Sports</i>	<i>Combat Sports</i>
Mean	14.9	15.4773
Stand. Dev.	5.3376	5.471
n	30	44
t	0.45	
t < critical value	<input type="checkbox"/>	no sig. diff.
Mental Skill		
	<i>Racket Sports</i>	<i>Combat Sports</i>
Mean	83.4333	88.5
Stand. Dev.	12.847	13.4629
n	30	44
t	1.6189	
t < critical value	<input type="checkbox"/>	no sig. diff.

Imagery Ability

The absolute value of the calculated is smaller than critical value (0.0983), so the means are not significantly different.

Mental Preparation

The calculated value is smaller than critical value (0.2702), so the means are not significantly different.

Self-Confidence

The absolute value of the calculated exceeds the critical value (2.3434), so the means are significantly different.

Anxiety and Worry Management

The absolute value of the calculated is smaller than critical value (1.4444), so the means are not significantly different.

Concentration Ability

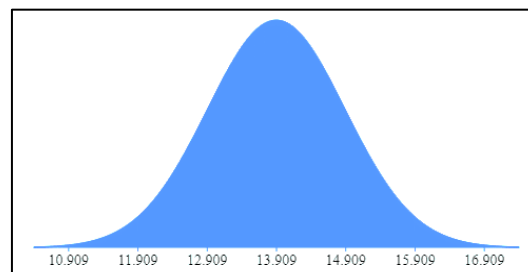
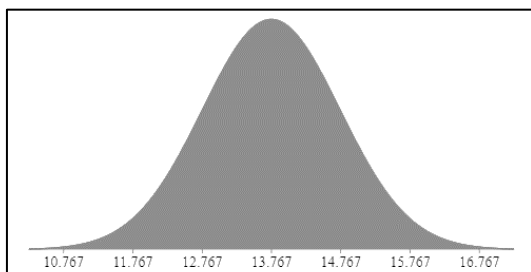
The absolute value of the calculated is smaller than critical value (0.6554), so the means are not significantly different.

Relaxation Ability

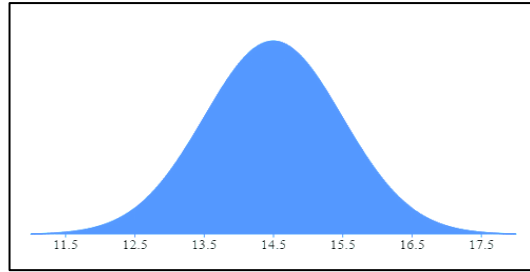
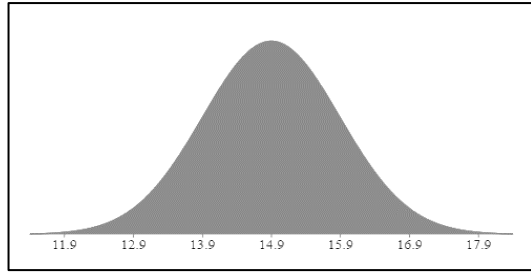
The absolute value of the calculated is smaller than critical value (0.45), so the means are not significantly different.

Mental Skill

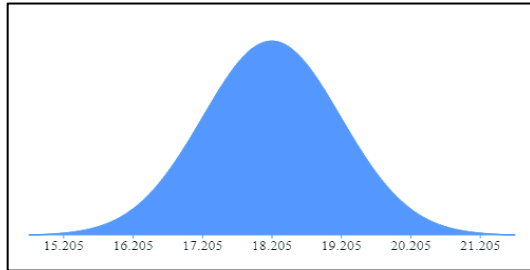
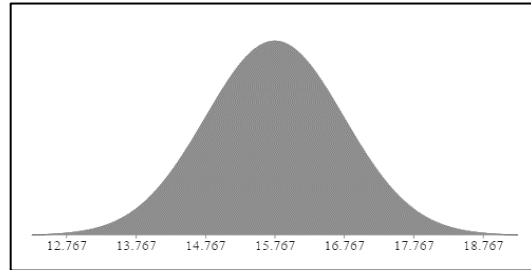
The absolute value of the calculated is smaller than critical value (1.6189), so the means are not significantly different.



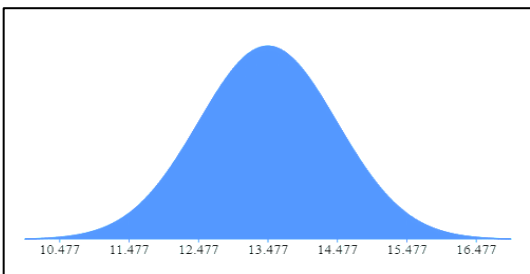
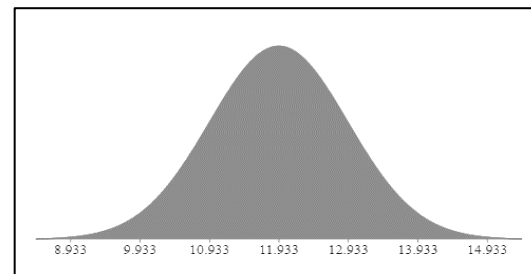
(a)



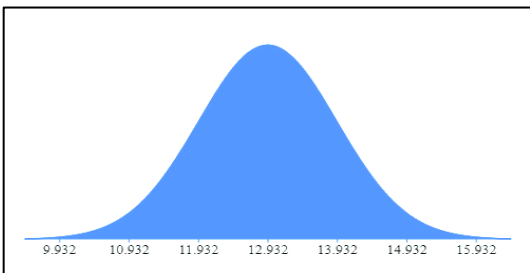
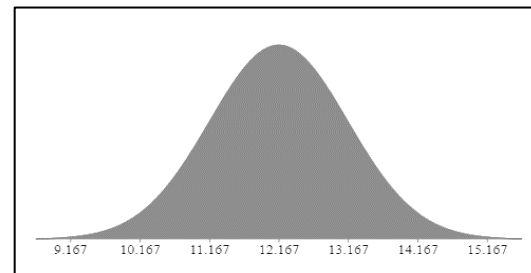
(b)



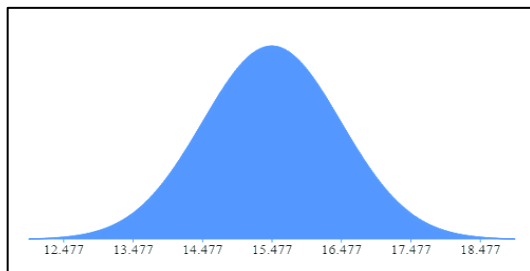
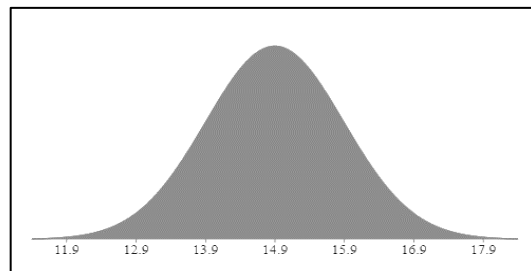
(c)



(d)



(e)



(f)

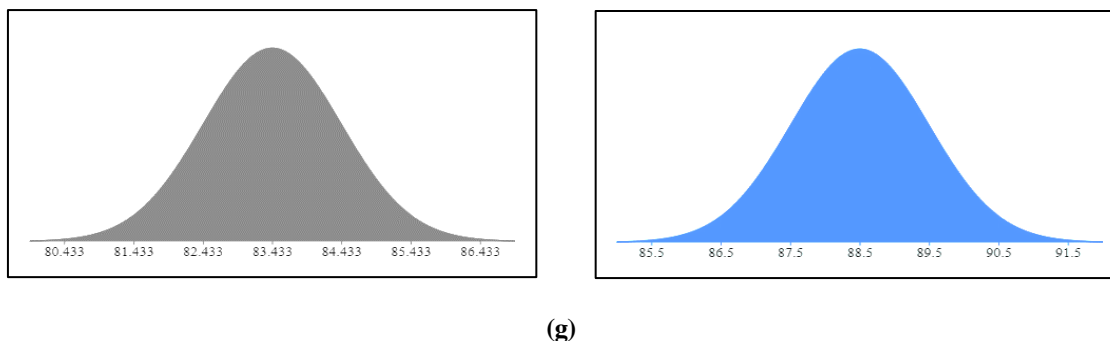


Figure-1: Normal distribution curve concerning mental skill (viz., (a). Imagery ability, (b). Mental preparation, (c). Self-confidence, (d). Anxiety and worry management, (e) Concentration ability (f). Relaxation ability and (g). Mental skill).

Declaration of competing interest

All authors declare there are no potential financial, personal, or otherwise conflicts of interest.

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