



ORIGINAL RESEARCH PAPER

Physical Education

A COMPARATIVE STUDY ON REACTION ABILITY AND KINESTHETIC PERCEPTION OF CBSE AND WBBSE SCHOOL STUDENTS

KEY WORDS: Reaction ability, Kinesthetic Perception.

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ABSTRACT

The aim of the study was to compare the reaction ability and kinesthetic perception of CBSE AND WBBSE school students. For the purpose of the study 30 CBSE students and 30 WBBSE female students, total (60) female students were taken as the subjects. The age group of the subject was ranged from 14-16 years. They were selected randomly. To measure the reaction ability of a subject, Nelson Hand Reaction test will use recorded to the nearest quarter of centimeter. To measure the kinesthetic perception the distance Perception jump and is recorded to the nearest quarter in centimeter. To compare the Reaction ability and kinesthetic perception 't' test was used to calculate the collected data. Mean, standard deviation and 't' test will be used in the present study. The significant level will be set at 0.05 level of confidence. The present study reveals that there was significant difference in reaction ability and kinesthetic perception between CBSE and WBBSE school students.

INTRODUCTION

Reaction time is the time elapsed between the stimulus given and the initiation of the response to it (stimulus). Due to close association between reaction time and speed and varied degree of difficulty in separating these two components of motor performance, some common tests have been constructed to measure simultaneously both speed and reaction time. So much so reaction time has also been alternatively termed as response speed or speed of response ability.

The word Kinesthetic in relation to sports training indicates something which is perceived physically while it is experienced. This feedback mechanism allows you to be aware of how the body is positioned at any moment. Kinesthetic or proprioceptive sense allows the body to perceive or feel movement, weight shifts, resistance, and position. To the point, kinesthetic awareness is the ability to know where your body parts are in three dimensional spaces. Kinesthesia is the awareness of the position and movement of the parts of the body using sensory organs, which are known as proprioceptors, in joints and muscles. The discovery of kinesthesia served as a precursor to the study of proprioception. While the terms kinesthesia are often used interchangeably, they actually have many different components. Often the kinesthetic sense is differentiated from proprioception by excluding the sense of equilibrium or balance from kinesthesia. An inner ear infection, for example, might degrade the sense of balance. This would degrade the proprioceptive sense, but not the kinesthetic sense. The affected individual would be able to walk, but only by using the sense of sight to maintain balance; the person would be unable to walk with eyes closed. Another difference in proprioception and kinesthesia is that kinesthesia focuses on the body's motion or movements, while proprioception focuses more on the body's awareness of its movements and behaviors. This has led to the notion that kinesthesia is more behavioral, and proprioception is more cognitive.

OBJECTIVE OF THE STUDY

The objective of the study was to compare the Reaction ability and kinesthetic perception of CBSE and WBBSE board female school students.

METHODOLOGY

SELECTION OF THE SUBJECTS:

For the purpose of the study 30 CBSE students and 30 WBBSE female students, total (60) female students were taken as the subjects. The age group of the subject was ranged from 14-16 years. They were selected randomly.

SELECTION OF THE VARIABLES:

To conduct the study the investigator tested all the subjects on two practical tests, namely Reaction ability and kinesthetic perception.

CRITERION MEASURES:

- To measure the reaction ability of a subject, Nelson Hand Reaction test will use recorded to the nearest quarter of centimeter.
- To measure the kinesthetic perception the distance Perception jump and is recorded to the nearest quarter in centimeter.

STATISTICAL PROCEDURE

To compare the Reaction ability and kinesthetic perception 't' test was used to calculate the collected data. Mean, standard deviation and 't' test will be used in the present study. The significant level will be set at 0.05 level of confidence.

RESULT OF THE STUDY

Table-1 Significant of Mean, Standard deviation and t-ratio of Reaction ability between CBSE and WBBSE school students

variable	Source of variance	Mean	Standard Deviation	't' -Ratio
Reaction ability	CBSE	9.267	4.510	2.42*
	WBBSE	12.533	5.77	

Significance at 0.05 level of confidence, $t_{0.05}(58)=2.00$

From the above Table – 1 it is clearly evidence that the calculated 't' value (2.42) is greater than tabulated 't' value (2.00), so we can say that significant difference is observed between CBSE and WBBSE students in respect of reaction ability .Table-1 also shows that the CBSE students have higher level of reaction ability in compared to WBBSE students.

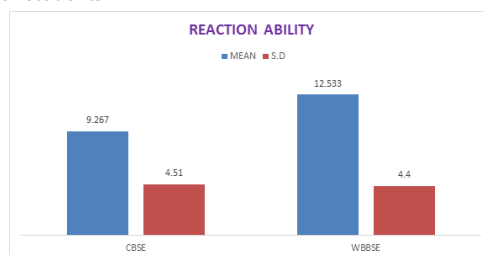


Figure-1 Mean and Standard Deviation of Reaction ability of CBSE and WBBSE school student.

Table-2 Significant of Mean, Standard deviation and t-ratio of distance perception jump between CBSE and WBBSE school students.

variable	Source of variance	Mean	Standard Deviation	't' -Ratio
Kinesthetic perception	CBSE	2.067	2.394	2.431*
	WBBSE	3.533	2.217	

Significance at 0.05 level of confidence, $t_{0.05}(58)=2.00$

From the above Table – 2 it is clearly evidence that the calculated 't' value (2.431) is greater than tabulated 't' value (2.00), so we can say that significant difference is observed between CBSE and WBBSE students in respect of distance perception jumpTable-2 also shows that the CBSE students have higher level of distance perception jump in compared to WBBSE students.

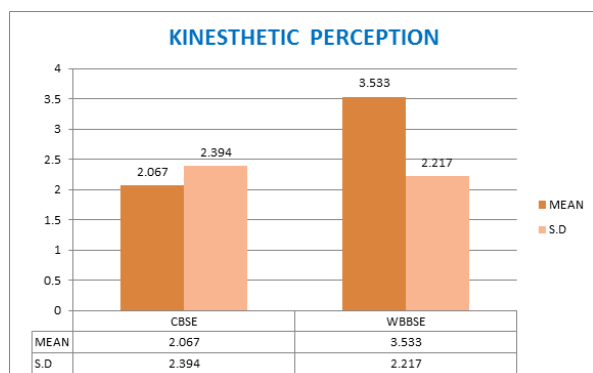


Figure-2 Mean and Standard Deviation of kinesthetic perception of CBSE and WBBSE school student.

DISCUSSION

Statistical calculation of the gathered data showed that there were significant difference between CBSE and WBBSE student in relation to reaction ability and kinesthetic perception between the CBSE and WBBSE school students.

In case of Reaction ability CBSE students was 9.267 and WBBSE students was 12.533 and the calculated t value was 2.42 which was higher than tabulated value. Reaction ability depends on the neuromuscular junction and neuromuscular capacity which depend upon the physical activity. Because CBSE curriculum are fixed with regular scientific physical activity. That's why the CBSE students is the better than the WBBSE students. This study is consonance with the study of **Rinku Tiwari, Reeta Venugopal (2015), Samanta, Bacher, Nayek (2016)**.

In case of kinesthetic perception CBSE students was 2.067 and WBBSE students' was 3.533 and the calculated t value was 2.431 which was higher than tabulated value and CBSE was better kinesthetic perception than WBBSE. It also depends upon the capacity of neuromuscular junction. Regular scientific training and daily nutrition effect in kinesthetic perception. That's why the CBSE students is the better than the WBBSE students. (Gopal Chandra Saha -2012) consonant with my study.

CONCLUSIONS

Within the limitations of the present study and on the basis of finding the following conclusions are drawn:

- The findings of the present study reveals that was significant difference in reaction ability between CBSE and WBBSE school students.
- The findings of the present study also reveals that was significant difference in kinesthetic perception between CBSE and WBBSE school students.

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