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# Comparison of School Girls Between Psychomotor Abilities in Different Districts

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**Abstract**

**Introduction:**

There is a lot of difference between Midnapore and Burdwan districts school girls in social & mental make-up as well as well as in physical ability. The psychomotor domain is mainly concerned with bodily movements and their control.

**Aim:** The purpose of the study was to finding out the difference between Midnapore and Burdwan school girls on their psychomotor abilities (Co-ordination, Static Balance, Reaction Time, Perceive Distance Jump). which is the basis of success in sports.

**Methodology:** A total of 60 N=60) school students were selected as subjects for the present study thirty from each group. The age of the subject ranged from 16 to 17 years.

**Statistical Analysis:** The Statistical independent 't' test was applied for calculating data at 0.05 level of significance. Psychomotor ability was assessed using Ball Transfer Test, Stork Stand Test and Nelson Speed Movement Test.

**Results:** There is no significance difference in selected psychomotor ability Ball Transfer Test (2.00>0.18), Stork Stand Test (2.00>-0.33), Nelson Speed Movement Test (2.00>-0.39) and Distance Perception Jump Test (2.00>-0.17) between Midnapore and Burdwan Districts.

**Conclusion:** The relevant variables psychomotor abilities between Midnapore and Burdwan Districts school girls were accepted null hypothesis.

**Keyword:** Psychomotor Ability, Co-ordination, Static Balance, Reaction Time

## INTRODUCTION

In sport, physical and psychological factors that affect the athlete's performance. When one analyses the sports-skills, almost all motor movements are found to be backed by one or the other psychological factor. Since sport is so visible and influential, psychomotor abilities are receiving considerable attention with an increasing number of individuals wishing to be involved in their explorations. In a context of skill and achievement, in which athletes try to reach a goal and in which proving competence and ability is important **(González-Hernandez & González-Reyes, 2017), Roberts and Treasure (2012)** claim that physical and psychological well-being depends on the contexts where sports practice is carried out. Psychomotor components work as the medium for the insight of cognitive and affective domains. These domains are inseparable identities and function in perfect harmony with one another. These are concerned primarily with strong attention. The psychology and biomechanics of the muscular system are to be understood before understanding the nature of the action. Performance of motor skills is not a physical or

mental response alone but involves neural, physiological and psychological aspects **(Watson and Tellegen, 1985).**

Psychomotor abilities are skills such as hand-eye coordination, balance, and reaction time that arise from a unity of cognitive and physical functions. All healthy people develop some psychomotor abilities during the course of early development, and many people choose to develop those abilities further for work, athletics, or other activities. Traits of the psychomotor are the relation between cognitive dimensions **(De & Mondal, 2020)** and motor movements. Psychomotor dimension is demonstrated by motor techniques such as movement, coordination, reaction ability, manipulation, kinesthetic perception, dexterity, grace, strength, and movement speed. These traits formed by psycho, i.e., mind and motor, i.e., movement. All moves should be wise in the concern of 'motor' otherwise it will be time consuming. Due to the progressive intelligibility of the team sports all motor moves regulated by mind **(Islam, 2020).** Therefore, most sports moments are mostly unpredicted and it hides on the brain of the player **(Islam & Kundu, 2020).** However, the certain intermittent sport in which players need the ultimate level of physical fitness **(Islam et al., 2019)** as the cricket game depends on a high fitness level. Otherwise, physical inactivity and poor fitness in teens raise the burden on health worldwide **(De and Ghosh, 2016).**

Since sports are primarily movement-oriented, it will be very relevant to create the young people's psychomotor profiles as the first step in determining how they will advance in sports in the future. In this regard, the current investigation may be considered an important scientific endeavour. Furthermore, the government is placing an increasing amount of emphasis on students' harmonious growth in the modern day, which naturally involves participation in sports. Therefore, the researcher is interested in examining these aspiring athletes' psychomotor profiles.

## MATERIALS AND METHODS

### *Design*

In order to identify the subjects for this study, a Random group design was used.

### *Participants*

Sixty School girls' students from two different district of West Bengal were randomly selected with equal ratio of percentage from each school as 30 subjects for the study. The data was collected from each of the below given schools situated in the two districts of West Bengal.

### *Instruments and Equipment*

Co-ordination ability, Static Balance and Kinesthetics perception were considered as the variables for the purpose of the present study. For measuring Co-ordination ability and Static Balance of the subjects, a ball transfer test and a Stock and Stand test was used respectively. The Kinesthetics perception to measure the speed of reaction time a Nelson Speed Movement Test was used.

### *Statistical Techniques*

An analysis was conducted to compare between categories using the T-test for Independent Samples to identify significant differences. In order to verify whether the difference really exist or not for which the level of significance was set at 0.05 level of confidence.

## RESULT

**Table 1 Means, Mean Difference, Standard Deviation, Standard Error and obtained 't' value on Co-ordination between different districts of girls' students**

| Districts | Means | Mean Difference | Standard Deviation | Standard Error | Obtained 't' |
|---|---|---|---|---|---|
| Midnapore | 22.11 | 0.89 | 2.68 | 0.60 | 0.18 |
| Burdwan | 21.22 | | 2.40 | | |

In Table -1 it is observed that the no significant differences were to be found in respect of Co-ordination ability between different district of School Students.

**Table 2 Means, Mean Difference, Standard Deviation, Standard Error and obtained 't' value on Static Balance between different districts of girls' students**

| Districts | Means | Mean Difference | Standard Deviation | Standard Error | Obtained 't' |
|---|---|---|---|---|---|
| Midnapore | 11.87 | 0.90 | 5.95 | 1.19 | 0.33 |
| Burdwan | 12.77 | | 3.78 | | |

In Table -2 it is observed that the no significant differences were to be found in respect of Static Balance between different district of School Students.

**Table 3 Means, Mean Difference, Standard Deviation, Standard Error and obtained 't' value on Kinesthetics perception between different districts of girls' students**

| Districts | Means | Mean Difference | Standard Deviation | Standard Error | Obtained 't' |
|---|---|---|---|---|---|
| Midnapore | 1.75 | 0.12 | 0.53 | 0.30 | 0.39 |
| Burdwan | 1.87 | | 0.19 | | |

In Table -3 it is observed that the no significant differences were to be found in respect of Kinesthetics perception between different district of School Students.

## DISCUSSION

It is evident from Table, which provides the findings of no significant difference amid the paired means of Psychomotor abilities between different district of School Students.

Depending on the age, students differ in their motor skills, similar to the findings of **Cecchini et al. (2012),** who found age differences in schoolchildren ages 3 to 12 in the nine motor skills assessed, with the oldest being significantly higher. We are also consistent with **Lesma et al. (2011),** who showed that those born in the early year had a greater development of their motor skills and were signed by professional football teams in a higher percentage.

The methodology used in the sessions, coinciding with **Noguera et al. (2015)** and **Vega (2017).** However, our results differ from those of Ferry-Rey, Dueñas, and Camps, who obtained improvements in psychomotority when it was practiced dynamically, and those of **Terry (2014),** who found improvements in 3-year-olds when they worked from a normative methodology. In contrast to this, **Mendieta, Gayrey, Valcerde, and Vargas (2019)** showed how children also improve their psychomotor profile by playing scratch due to the static and dynamic balancing activities such as walking, running, and jumping exercises that this game involves.

## CONCLUSIONS

Within a specific range, female pupils' psychomotor ability performance improves with age. Students in different school districts do not significantly differ in their kinesthetic perception, static balance, or coordination skills.

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