



A COMPARATIVE STUDY OF SELECTED MOTOR FITNESS VARIABLES BETWEEN RURAL AND URBAN SCHOOL BOYS OF POONCH DISTRICT

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Abstract

The purpose of the study was to analyses the motor fitness between rural and urban school Boys. The variables selected for the study were Explosive Strength, and Muscular Endurance. The subject age ranged between 14-16 years. The subjects of the study were 40 boys of rural and urban school of Poonch district. The selected motor fitness was assed using the standardized test. The collected data on the selected variables are treated with independent 't' test for motor fitness.

Keywords: Motor Fitness, Rural, Urban, Boys, Poonch District.

Introduction

Motor fitness is closely associated with physical activity levels and overall health status. Children who possess higher levels of motor competence are generally more active and demonstrate better physical fitness. Malambo et al. (2022) reported that motor competence, physical fitness, and physical activity are important health-related parameters that contribute significantly to children's development and performance.

The school environment plays a vital role in developing motor fitness among children. Participation in physical education classes, sports activities, and recreational games provides opportunities for improving speed, agility, muscular strength, and endurance. Lin et al. (2022) found that school-based physical training programs significantly improve children's motor skills and physical fitness components.

Environmental and lifestyle factors may influence the motor fitness levels of children. Differences in living conditions, availability of playgrounds, transportation methods, daily physical activity, and recreational opportunities can affect motor fitness performance. Studies have indicated that children from rural and urban areas often exhibit variations in physical activity patterns and movement of behaviors due to differences in environmental characteristics (Vieira et al., 2023).

Rural children are often involved in more outdoor activities and active lifestyles, whereas urban children may experience reduced opportunities for physical activity because of technological influences, limited open spaces, and sedentary behaviors. These environmental differences may result in variations in motor fitness performance between rural and urban school children. Therefore, comparing motor fitness levels among these groups is important for understanding their physical development and identifying areas requiring improvement.

The Statement of the problem

The purpose of the study was to analyses the motor fitness between Rural and Urban school children boys of Poonch district.

Delimitation

- ❖ The study was delimited to Poonch district rural and urban school boys .
- ❖ The study was delimited to rural and urban boys only.
- ❖ The study was delimited to 20 children in each group.
- ❖ The study was delimited to selected motor fitness components.
- ❖ The study was restricted to the age group of 12-16 years only

Limitation

- ❖ The study was limited to select rural and urban school of district Poonch therefore the findings cannot generalize to the entire Jammu and Kashmir or other states.
- ❖ The age group of participants was restricted (e.g. 12-16 years) result may differ for other age category.
- ❖ Motivation levels and psychological factors of students during testing was not be measured.

Significance

- The study will provide scientific evidence on the motor fitness level of rural and urban school boys aged 12-16 years in Poonch district, Jammu and Kashmir.
- The finding will physical education teachers and school authorities in planning and improving age appropriate and need based physical education program.
- It should contribute to academic literature related to motor fitness comparisons in rural and urban contexts.

- It should help in designing special training program for improvement in speed, explosive strength.

Material and Methodology

A total of 40 boys (N=40) from rural and urban school were selected. The subject aged ranged between 12-16 years. Twenty boys from rural school and Twenty boys from urban school of Poonch district Jammu and Kashmir. The selected motor fitness variables for the study are speed, and Explosive Strength, the selected variables were assessed by using the standardized test “t” test at 0.05 level of significant.

TABLE NO. 1

VARIABLES TESTS AND UNITS OF MEASUREMENT

VARIABLE	UNITS OF MEASURES	TOOLS/TEST USED	AAHPER TEST (1976)
Speed	In seconds	50 Meter dash	
Explosive Strength	In Meters	Standing Broad jump	

2.1 PROCEDURE

All the participants were informed in detail about the purpose and procedures of the study before the collection of data. The researcher explained the testing protocol and ensured that the participants understood the requirements of the tests. No special motivational techniques were used prior to data collection. All participants performed the tests under similar conditions and followed the same testing procedures. The researcher provided necessary instructions and supervision throughout the testing process to ensure uniformity and accuracy in data collection.

2.2 STATISTICAL TECHNIQUES

The collected data were analysed using SPSS software (Version 23.0). Descriptive statistics, including mean and standard deviation, were calculated to describe the characteristics of the data. To determine whether significant differences existed in speed and explosive strength performance between rural and urban school boys of Poonch district. Independent samples (t-test) was employed. The level of significance for all statistical tests was set at 0.05.

VARIABLES

- ❖ Speed
- ❖ Explosive strength

Administration of the tests

For the purpose of the study, the necessary data was collected by administering various tests for the chosen variables:

SPEED [50MTR DASH]

The aim of this test is to measure the speed ability of the participant by recording the time taken to run a distance of 50 meters as fast as possible

Procedure:

The test was administered to one subject at a time. Subject took their positions behind the starting line. The starter gave the command “Ready” and simultaneously gave a downward sweep of the hand so that the timekeepers could start their watches. On the command “Go” (clap or whistle) the subjects left the starting line and sprinted fast the finish line. The timekeepers started their watches when they saw the downward sweep of the starter’s hand and stopped them when the torso of the subjects crossed the finish line. The time was recorded in seconds

EQUIPMENTS

50-meter running track or marked area Stopwatch Measuring tape Marking powder for starting and finishing line markers Recording sheet and pen/pencil

SCORING

The final score was the time recorded to the nearest 1/10 of a second.

EXPLOSIVE STRENGTH [STANDING BROAD JUMP]

The aim of this test is to determine the power of legs. To assess the strength of the participants measuring tape, long jump pit was required to record the data.

PROCEDURE:

The subject stood behind the starting line with the feet parallel to each other. The subject was instructed to jump a distance as long as possible by bending knees and swinging arms to take off for the broad jump in the forward direction and landed on both feet.

Draw a take-off line on a flat, non-slip surface. The participant stands just behind the take-off line with feet slightly apart. Using a two-foot take-off, the participant swings the arms and bends the

knees to jump forward as far as possible. The participant must land on both feet without falling backward. The distance is measured from the take-off line to the nearest point of contact on landing (usually the heels). Usually, three trials are given.

SCORING: Best performance from three trails (Longest jump distance) was recorded for the statistical analysis.

RESULTS

TABLE: NO. 1

Descriptive statistics of speed variable among Rural and Urban school boys of Poonch district

VARIABLE	GROUP	N	Mean	Std. Deviation	Std. Error Mean
SPEED	RURAL BOYS	20	10.1050	.98053	.21925
	URBAN BOYS	20	7.9880	1.83502	.41032

Table No.1 presents the descriptive statistics for the speed variable among rural and urban school boys. The rural school boys recorded a mean value of 10.1050 with a standard deviation of 0.98053, whereas the urban school boys recorded a mean value of 7.9880 with a standard deviation of 1.83502. The findings indicate that the rural school boys had a higher mean time in the 50-meter dash than the urban school boys.

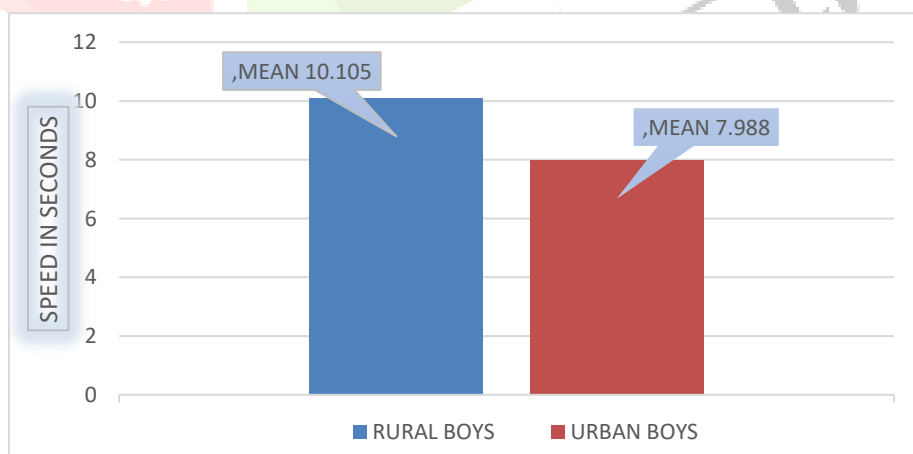


FIGURE NO II GRAPHICAL REPRESENTATION OF MEAN SCORES OF SPEED VARIABLE BETWEEN RURAL AND URBAN SCHOOL BOYS

TABLE NO 2

COMPARISION OF SPEED VARIABLES (t-test) BETWEEN RURAL AND URBAN SCHOOL BOYS

variable	"t"	df	Mean Difference	Std. Error Difference	Sig. (2-tailed)
SPEED	4.550	38	2.11700	.46523	.000

Indicated significant at the 0.05 level

Table NO. 2 depicts the results of the independent samples t-test for the speed variable between rural and urban school boys. The obtained p-value ($p < 0.00$) was lower than the selected level of significance (0.05), indicating a statistically significant difference in speed performance between rural and urban school boys.

TABLE NO.3

Descriptive statistics of Explosive strength variable among Rural and Urban school boys of Poonch district

VARIABLE	GROUP	N	Mean	Std. Deviation	Std. Error Mean
EXPLOSIVE STRENGTH	RURAL BOYS	20	1.7125	.30817	.06891
	URBAN BOYS	20	1.7335	.21993	.04918

Table NO. 3 Present the descriptive statistics for the explosive strength variable between rural and urban school boys. The rural school boys recorded a mean value of 1.7125 with a standard deviation of 0.30817, whereas the urban school boys recorded a mean value of 1.7335 with a standard deviation of 0.21993, the finding indicate that the urban school boys had a slightly higher mean distance in standing broad jump then the rural school boys.

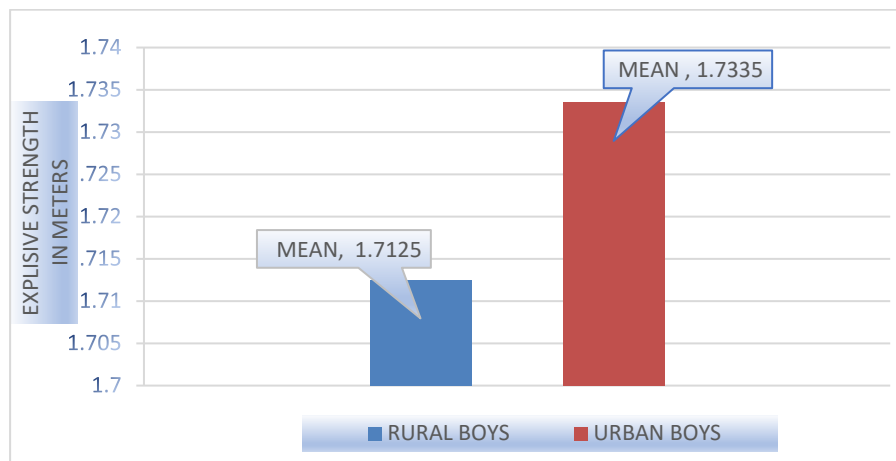


FIGURE NO II GRAPHICAL REPRESENTATION OF MEAN SCORES OF EXPLOSIVE STRENGTH VARIABLE AMONG RURAL AND URBAN SCHOOL BOYS

TABLE 4
COMPARISON OF EXPLOSIVE STRENGTH VARIABLES BETWEEN RURAL AND URBAN SCHOOL BOYS

VARIABLE	Df	Mean Difference	Std. Error Difference	"t"	Sig. (2-tailed)
EXPLOSIVE STRENGTH	38	-.02100	.08466	.248	.805

Indicated significant at the 0.05 level.

Table NO. 4 depicts the results of the independent samples t-test for the explosive strength variable between rural and urban school boys. The obtained p-value ($p > 0.805$) was higher than the selected level of significance (0.05), indicating no statistically significant difference in explosive strength performance between rural and urban school boys.

DISCUSSION OF THE FINDINGS:

MOTOR FITNESS VARIABLES

1) SPEED

The result of the study informs that there was a significant difference between rural and urban school boys for their speed variable. On the basis of statistical analysis, rural school boys performed better than urban school boys in speed. These findings are supported by **Golle et al. (2014)**, who reported that living environment significantly influences physical fitness performance among school children.

2) EXPLOSIVE STRENGTH

The result of the study revealed that there was no significant difference between rural and urban school boys for their explosive strength variable. Although urban school boys showed a slightly higher mean score than rural school boys, the difference was not statistically significant. These findings are supported by **Ortega et al. (2011)**, who found that differences in strength-related fitness components between rural and urban children were not statistically significant.

CONCLUSION

The present study was concluded that there was a significant difference in speed between rural and urban school boys of Poonch District. The rural and urban boys showed different performance in speed. The rural school boys demonstrating better speed compared to urban school boys

It was concluded that there was no significant difference in muscular strength between rural and urban school boys of Poonch District. Both groups showed similar performance in muscular strength.

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