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Analysis of motor performance of rural and urban high school children

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Abstract
The purpose of the study was to analyse the motor performance skill between rural and urban high school children. The variables selected for the study were Strength, Speed and Agility. The subject age ranged between 10 to 14 years. The subject of the study was 40 boys of rural and urban high school of Mysore district. The selected motor skills were assessed by using the standardized test manual for motor developments. The collected data on the selected variables were treated with independent 't' test at motor skills. It was found that the rural high school children were better in the motor skills when compared with urban high school children.

Keywords: Motor fitness components, Urban, rural, high school boys

Introduction
Children are commonly considered to have the formative potential to perform most essential motor aptitudes at the developmental organize by age eight, in actually this is regularly not the situation. The securing of the fundamental development abilities are formatively sequenced, and are depends on motor components (Strength, Speed, agility) and the procedure of procurement happening however a scope of dynamic play encounters and organized play.
Various factors are related with adopted and maintaining a physically active life style, such as socioeconomic status, cultural influence, lifestyle environment factors and health status (Seefeldt, Malina & Clark 2002) (Haywood & Getchell 2014) have reported that motor development refers to the continues, age related process of changes in movement as well as the interacting constrains of the individual, environments and tasks that drive these changes.

The statement of the problem
The purpose of the study was to analyse the motor fitness components between urban and rural high school children.

Delimitation
- The study was delimited to Mysore district rural and urban high school student.
- The study was delimited to urban and rural high school boys only.
- The study was delimited to 20 students in each group.
- The study was delimited to selected Motor components.

Limitation
The following were the limitation of the study.
- The instrument used to measure the fitness parameter during the test was not calibrated due to non-available of the instruments.
- Although the subject was asked to give the best in the final test it is likely they were not sufficiently intrinsically motivated to performance.

The significance of the study
- The study has wide application both in Physical fitness testing program and in records studies together.
- It should be a help to know the general capacity of individual.

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- It should be help to compare motor performance of urban and rural high school children and urban high school children of Mysore district.
- The study also reveals the changes in performance to the physical fitness
- The studies will useful contribution to the high school children sport field.
- The study may help to coaching programme planner to prepare better training schedule.

Hypothesis

- It was hypothesised that rural high school children are greater in motor performance ability compared to urban high school boys of Mysore district.

Methodology

A total of 40 children (N=40) from rural and urban high school children were selected. The subject age ranged between 10 to 14 years. Twenty subjects each from urban high school, twenty from rural high school of Mysore district of Karnataka state. The selected motor performance components for the study are speed, strength and agility. The selected motor skills were assessed by using the standardized test manual for gross motor developments edition "t" test at 0.05 level of significant.

Medicine ball throw

The medicine ball throw is a common and easy to administer test of arm strength. It is one of the fitness tests in the NFL Combine. And is also an event in Sports Hall competitions in the UK.

- **Purpose:** to measure the strength and power of the arms

Zig-zag run test

This test requires the athlete to run around a series of cones as fast as possible.

- The athlete warms up for 10 minutes
- The assistant marks out a rectangle 10 by 16 feet with four cones and places a cone in the centre
- The assistant gives the command "GO" and starts the stopwatch.
- The athlete commences the test at the Start & Finish cone and follows the grey route indicated in the diagram
- The assistant stops the stopwatch and records the time

when the athlete's torso crosses the Start & Finish cone.

- **Purpose:** To test Agility (quickness, and body control) in multiple planes of movement. The test also assesses lower extremity control, including the ability to perform plant and cut types of movements correctly.

60 Yard Dash

Sprint or speed tests can be performed over varying distances, depending on the factors being tested and the relevance to the sport. The 60 yard dash is commonly used in testing baseball players, with many Major League clubs making this test mandatory prospective player. See also the 30 yard dash which is part of the SPARQ rating system for baseball, and the baseball specific Home to First Base sprint test.

- **Purpose:** The aim of this test is to determine acceleration, and also a reliable indicator of speed, agility and quickness.
- **Subject:** Mysore district rural and urban high school student.

As observed above, motor performance is closely linked with age and gender. It is a common reflector as well as predictor. The widespread use of anthropometric data in predicting the health status and sport performance of the population. However, the relationship of anthropometric measures and motor skill development of the high school children has not yet been explored. In this study, one of the variables, the motor fitness component was assessed to find out the motor performance of the target group.

Analysis and interpretation of data and discussion

This investigation was mean to compare the motor fitness parameter of Mysore district rural and urban high school children. Twenty from Rural high school and twenty from urban high school children of Mysore district were taken as subject for this study. Their physical fitness of the candidates was estimated on the basis of Borrow motor ability test performance in the events such as Medicine ball through, 60yards dash, Zig-zag run. The statistical analysis to which the data subjected has been presented in this chapter. The mean value for each item performance and standard deviation for the result of each activity and the same was tabulated below.

Table 1: Shows the mean value of the rural and urban high school children of Mysore district.

Events	Rural high school children (20)	Urban high school children (20)
Medicine ball throw	6.13	5.81
Zig-zag	8.78	8.71
60 Yards dash	7.35	6.07

Table-1 shows mean value of medicine ball through of rural high school children is 6.13 (20) and urban high school children 5.81(20).So rural high school have the great strength compare to Urban high school children. This score is applied on the standard norms of Borrow motor ability test.

Mean value of Zig-zag run of rural high school children is 8.78 seconds (20subject) and Urban high school children 8.71 seconds (20subject) So rural high school children has the

greater agility than the urban high school children of Mysore District. This score is applied on the standard norms of Borrow motor ability test.

Mean value of 60 yards dash of rural is 7.35(20) and Urban high school children 6.07(20) of Mysore district.S0 Rural high school have the greater amount of speed compared to Urban high school children of Mysore District. This score is applied on the slandered norms of Borrow motor ability test.
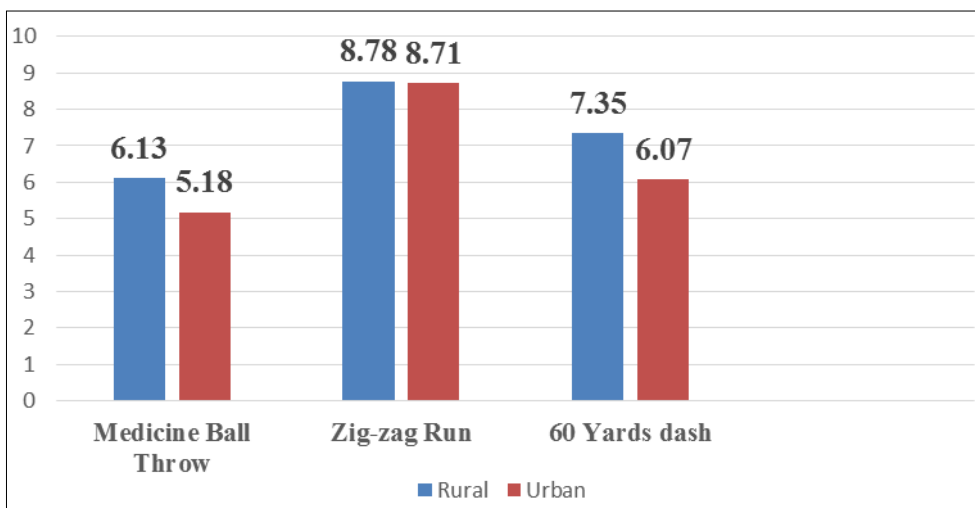
Fig 1: Show the mean value of motor performance of Rural and Urban high school of Mysore district.

Table 2: Shows statistical analysis of Medicine Ball throws of Rural and Urban high school children of Mysore District.

Variables	Rural Mean± SD	Urban Mean± SD	'T'-Value	df	Sig
Medicine Ball throw	6.13	5.18	3.24	38	.000
Zig-zag run test	8.74	8.71	4.52	38	.000
60Mtr Dash	7.36	6.07	2.813	38	.000

* Significant at 0.05 level, Table value-2.262.

Table-4 shows the mean value of motor performance variables were: 6.13Mtrand 5.18Mtr (Strength), 8.74 sec and 8.71 sec (Agility), 7.36sec and 6.07sec (Speed).

Table also shows the obtained 't' values on motor performance variables were: 3.24 (Strength), 4.52 (Agility), 2.813sec (Speed).

The obtained 't' values were tested at 0.05 level of significance. Since the calculated 't' values were greater than the table 't' value at 0.05 level for degrees of freedom 38. null hypothesis was rejected at 0.05 levels of significance and formulated research hypothesis was accepted. Thus it was concluded that rural high school children showed significant in strength, agility and speed ability as the study the above remark can be given at 95% confidence.

Summary conclusion and recommendation
In the process of the sustenance and development, man was required to employ varies type of fitness, out of which fitness parameter like speed, agility, strength, was of paramount importance. A desirable level of fitness was accepted at entry level for a couple of jobs and professional training. Rural high school children and Urban high school children was one such field of endeavour.

One of the very important factors responsible for the performance in competitive sports in fitness. Motor fitness helps to quick improve in performance of rural high school children and urban high school children. They require more fitness for the sports activity. Motor fitness helps to better performance and attain goal with in a minimum time.

The study was taken by researcher to measure the fitness parameters of the rural high school children and urban high school children. So the researcher was selected the urban and rural high school students. Total 20 rural high school children and 20 urban high school children were administered BORROW motor ability test and find out the level of motor fitness ability and also find out the mean of both rural and urban high school children and also t-value was done with statistical analyses.

The data analysis of BORROW motor ability performance shows that rural high school children have good arm strength, agility and speed compared to urban high school children.

Conclusion
On the basis of the data analysis the research in confident of arriving at certain conclusion based on his result of the study, they are as follows
1. The strength of the rural high school children is better than the urban high school children.
2. The agility of the rural high school children is better than the urban high school children.
3. The speed of rural high school children is better than the urban high school children.

Recommendation
Based on the finding of the study following recommendation are made.
1. Serious and regular practice will improve the motor fitness performance which is turned improve the speed, strength, agility.
2. Will designing the training programme for sports person, the fitness of the student must be considered.
3. Teacher should conduct the fitness test for the development of motor fitness of the student.
4. Similar study can be conducted to identify the motor fitness test for different sports and games.
5. This study can conduct to fitness parameter level, on other fitness components such as Co-ordination, endurance.

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