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## A study of difference between agility and shoulder strength among school girls

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### Abstract

The participation in games and sports provides opportunity to children for the development of strength, speed, endurance, agility, neuro-muscular skill and coordination through their engagement. Such engagements force the children to run, jump, bend, stretch, balance; think thus it meets all the requirements of an excellent form of physical activity. Various researches have been taken place in relation to physical, physiological, anthropometrical, psychological variable etc.

Health is one of the fundamental human rights. The international organization like the united-nations and world health organization have endorsed the principle. Unfortunately, health cannot be given or described, but it has to be actively acquired and won. Whenever a man is in a perfect balance with the environment and has an upper hand over the harmful factors like pathogenic micro- organic insects, physical and chemical agents he is said to be healthy there is then normal functioning of his personal and social duties. The state of health is not absolute. Health cannot be achieved merely by taking a pill every day not by observing a few restrictions.

**Keywords:** Agility, shoulder strength, school girls

### Introduction

Today everyone wants to live a dignified and independent life especially during old age and hence one starts preparing for this phase of life right from the young age. Even during youth, individual should participate in a fitness programme in order to remain healthy and happy. Participation in physical fitness and wellness programmes will help in developing positive attitudes so that people will be able to use all the possibilities in life and work towards achieving them so that there is personal fulfillment and satisfaction

Regular physical exercise and participation in games and sports help to improve physical fitness, which includes strength, speed, agility flexibility and endurance. Exercise helps in controlling obesity, specially a few grams of fat from the wrong places such as in the walls of the coronary and other important arteries. It aids digestion by reducing nervous tension and has a favourable effect on the level of function. It also improves the function of the lungs.

Physical fitness is very important aspects not only in the physical education but also essential part of the human life. Without the physical fitness a man cannot able to do something for himself so what he will do for others or to society. If a person is physically fit, naturally he will be motivated to do something. Kapil Dev says, "Behind my world records a great hand of the physical fitness was there, without the fitness I could not achieve this tremendous success." The physical fitness or condition is the totality of five motor abilities namely strength, speed, endurance, flexibility & coordinative abilities. Therefore the sports performance in all sports depends to great extent on these abilities.

The participation in games and sports provides opportunity to children for the development of strength, speed, endurance, agility, neuro-muscular skill and coordination through their engagement. Such engagements force the children to run, jump, bend, stretch, balance; think thus it meets all the requirements of an excellent form of physical activity. Various researches have been taken place in relation to physical, physiological, anthropometrical, psychological variable etc.

Five factors are responsible for physical fitness. They are known as prosaic or gesture factors. It includes agility, speed, strength, endurance, and flexibility.

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If a person achieves gesture capacity according to his capacity then only can he achieve physical capacity. Physical fitness programmes help a person to attain good shape, size and structure of body. Postural deformities are removed. It also keeps the weight of a person in check. A person becomes physically and mentally agile. Physical fitness and well being of a person makes his responses quicker and more accurate. Owing to this the quality of work done by him improves. Health is one of the fundamental human rights. The international organization like the united-nations and world health organization have endorsed the principle. Unfortunately, health cannot be given or described, but it has to be actively acquired and won. Whenever a man is in a perfect balance with the environment and has an upper hand over the harmful factors like pathogenic micro- organic insects, physical and chemical agents he is said to be healthy there is then normal functioning of his personal and social duties. The state of health is not absolute. Health cannot be achieved merely by taking a pill every day not by observing a few restrictions.

Selected health related physical fitness components.

1. Agility (10X4 Shuttle Run.)
2. Shoulder Strength (Bend arm hang.)

**Procedure**

1) In this chapter the procedure adopted for the selection of subjects, criterion measures, Reliability of data, Administrations of the test, designs of the study and statistical techniques for analysing the data have been described.

**Selection of Subjects**

The study was designed to find out the health related physical fitness among girls studying in two different types of schools of Faridabad. Age of the selected students was in between 12-15 years. Fifty Girls subjects were selected randomly from each school so a total of 100 students were randomly selected as subjects for this particular study.

The following schools were involved in the collection of data:-

1. D.A.V. School, Faridabad.
2. Manav Rachna International School, Faridabad.

**Criterion Measures**

The criterion measures chosen for testing the hypothesis were as follows:

1. **Shoulder strength:** Bend arm hang test was used and it was recorded in Sec.
2. **Agility:** Shuttle run test was used and it was recorded in one tenth of Sec.

**Reliability of Data**

Establishing the instrument reliability tester competency with the help of test retest method ensured the reliability of data.

**Instrument Reliability**

The stop watches, the measuring tape and all the other instruments were used in this study were manufactured by renowned concern and compare their calibration was considered adequate for the purpose of this study.

**Test Competency**

The scholar collected the data in the present study with assistance of physical education teachers and students. The scholar as well as other physical education teacher and

students had many years of experience. Thus their ability to administrate the tests for this study was considered quite adequate.

**Table 1:** Reliability Coefficients of Test Retest Scores

S. No.	Test Item	Co-efficient of correlation
1.	Bend arm Hang	0.81
2.	Shuttle run	0.84

**Design of the study**

The group consisted of 50 subjects from each school selected randomly. All subjects were tested for Agility, Shoulder strength.

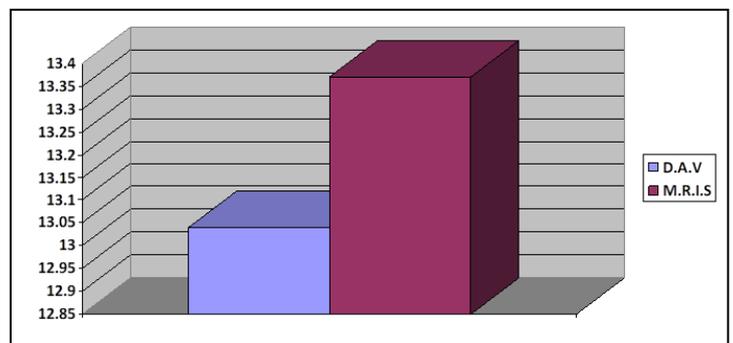
**Table 2:** Significant of Difference between the Means of D.A.V. School, Faridabad and Manav Rachna Internation School, Faridabad Girls in Agility

Groups	Mean (M)	S.D.	Diff. B/W Mean (DM)	σDM	' t '
D.A.V.	13.04	1.06	0.33	0.2	1.65
M.R.I.S.	13.37	0.86			

\*t<sub>0.05 (98)</sub> = 1.98

It is evident from the table – 1 that there is no significant differences exist among the girls of D.A.V. and Manav Rachna International School, Faridabad in the variable agility since the calculated 't' value 1.65 was found to be less than tabulated 't' value 1.98 required to be significant at 0.05 level. Therefore there is no significant difference exist among girls of D.A.V. School, Faridabad and Manav Rachna International School, Faridabad in variable agility.

Graphical representation of variable agility among girls of two different schools is given in Figure 1.



**Fig 1:** Graphical representation of variable agility among girls of two different schools

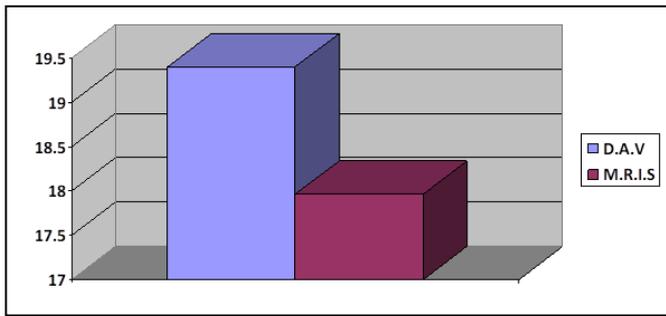
**Table 3:** Significant of Difference between the Means of D.A.V. School, Faridabad and Manav Rachna Internation School, Faridabad Girls in Shoulder Strength

Groups	Mean (M)	S.D.	Diff. B/W Mean (DM)	σDM	' t '
D.A.V.	19.40	15.30	1.44	1.44	1.0
M.R.I.S.	17.96	13.86			

\*t<sub>0.05 (98)</sub> = 1.98

It is evident from the table – 2 that there is no significant difference exist among the girls of D.A.V. School, Faridabad and Manav Rachna International School in the shoulder strength since the calculated 't' value 1.0 was found to be less than tabulated 't' value 1.98 required to be significant at 0.05 level. Therefore there is no significant difference exist in shoulder strength among girls of D.A.V. School, Faridabad and Manav Rachna International School, Faridabad.

Graphical representation of variable shoulder strength among girls of two different schools is given in Figure 2.



**Fig 2:** Graphical representation of variable shoulder strength among girls of two different schools

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