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Relationship between shuttle-run (10×4) yards and hexagon agility test of school boys of different age groups of Pune city

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Abstract
The purpose of this study was to find out the relationship between the shuttle-run & Hexagon agility tests. A total of 20 school students were selected by randomly sample technique in the age group of 14-17 years from modern high school Shivajinagar pune. The agility tests of this study were measured by (10×4) yards shuttle-run & Hexagon agility test (Anti-clock wise & Clock-wise). Spearman's coefficients of Correlations were calculated to determine the relationship between the variables. Result shows that Mean & standard deviation of Shuttle-run was (11.4960 ± 0.81648) & Hexagon was (16.7980 ± 1.54356) respectively and Mean & standard deviation of Anti-clock & Clock-wise was (16.7855 ± 1.55435) & Clock-wise was (16.8105 ± 1.60572) respectively. The calculated '*p'* value of shuttle-run & Hexagon agility test was 0.280, which was not statistically significant at 0.05 level (p=0.232). And also '*p'* value of Anti-clock & Clock-wise was 0.922, which was statistically significant at 0.05 level (p=0.000). From the above results it can be calculated that there was no any relation of shuttle-run & Hexagon agility test. Hence it can be conclude that each test will may be used in a differentiate purposes and also coefficient of correlation of anti-clock & clock-wise was statistically significant and it was concluded that in both the procedures i.e. anti-clock & clock-wise will gets the same result in any specific purposes.

Keywords: shuttle run, hexagon agility test, school boys, anti-clock & clock-wise, mean & standard deviation

Introduction
The ability to perform a series of explosive power movements in rapid succession in opposing directions (zigzag running or cutting movements). It is the ability to change the body's position efficiently, and requires the integration of isolated movement skills using a combination of balance, coordination, speed, reflexes, strength and endurance. Agility is the ability to change the direction of the body in an efficient and effective manner and to achieve this you require a combination of: balance - the ability to maintain equilibrium when stationary or moving (i.e. not to fall over) through the coordinated actions of our sensory functions (eyes, ears and the proprioceptive organs in our joints); static balance - the ability to retain the centre of mass above the base of support in a stationary position; dynamic balance - the ability to maintain balance with body movement; speed - the ability to move all or part of the body quickly; strength - the ability of a muscle or muscle group to overcome a resistance; and lastly, co-ordination - the ability to control the movement of the body in co-operation with the body's sensory functions (e.g. catching a ball [ball, hand and eye co-ordination]).
In sports, agility is often defined in terms of an individual sport, due to it being an integration of many components each used differently (specific to all of sorts of different sports). Sheppard and Young (2006) defined agility as "a rapid whole body movement with change of velocity or direction in response to a stimulus.

Material and Methods
In this study, 20 male subjects of modern high school Shivajinagar were selected randomly for the experiment. The age of the subjects was 14-17 years. The subjects were familiar with the procedure of the tests and then actual experiment was conducted. Agility was first measured by shuttle-run and hexagon agility test, and also Hexagon agility test was measured by anti-clock & Clock-wise pattern. After that data was collected and analyzed by spearman's coefficient of correlation and interpretations were drawn. The level of significance was kept at 0.05 level of significance.

Procedure
Before conducted the agility tests, the subjects were given necessary instructions. Both the tests of agility, shuttle run and hexagon test was conducted by the subjects; the best score of each trial was recorded for the analysis.

Data Analysis
After data collection the data were analyzed by descriptive statistics & Spearman's Correlations which are represented the following tables.

Table 1: Descriptive statistics of Shuttle-run and Hexagon agility test

	Mean	N	Std. Deviation	Std. Error Mean
Shuttle-run	11.4960	20	0.81648	0.18257
Hexagon	16.7980	20	1.54356	0.34515

From table 1 shows that there were 20 subjects in both agility tests. The mean of shuttle-run was 11.4960 with Std. deviation 0.816 and the mean of hexagon was 16.7980 with Std. deviation of 1.543.

Table 2: Spearman's Correlations of Shuttle-run and Hexagon agility test

	N	Correlation	Sig.
Shuttle-run & Hexagon	20	0.280	0.232

From table 2 shows that the Coefficient of correlation of agility measured by shuttle-run and hexagon test is 0.280 which was not statistically significant at 0.05 level (p=0.232).

Table 3: Descriptive statistics of Anti-clock and Clock-wise of Hexagon agility test

	Mean	N	Std. Deviation	Std. Error Mean
Anti-clock	16.7855	20	1.55435	0.34756
Clock	16.8105	20	1.60572	0.35905

From the table 3 shows that there were 20 subjects in Hexagon agility test. The mean of Anti-clock was 16.785 with Std. deviation 1.554 and the mean of Clock-wise was 16.810 with Std. deviation of 1.605.

Table 4: Spearman's Correlation of Anti-clock & Clock-wise of Hexagon agility test

	N	Correlation	Sig.
Anti-clock & Clock-wise	20	0.922	0.000

From the table 4 shows that the Coefficient of correlation of Hexagon agility test measured by anti-clock & clock-wise is 0.922 which is statistically significant at 0.05 level (p=0.000)

Result

Data are presented as Mean, std. Deviation & coefficient of correlation of Shuttle-run & Hexagon agility tests. From table 1.1 shows that the mean of shuttle-run was 11.4960 with Std. deviation 0.816 and the mean of hexagon was 16.7980 with Std. deviation of 1.543 and table 1.2 shows that the Coefficient of correlation of shuttle-run and hexagon agility test was 0.280 which was not statistically significant at 0.05 level (p=0.232) and also table 2.1 shows that the mean of the Anti-clock was 16.785 with Std. deviation 1.554 and the mean of Clock-wise was 16.810 with Std. deviation of 1.605 and also the above table 2.2 shows that the coefficient of correlation of anti-clock & clock-wise was 0.922 which was statistically significant at 0.05 level (p=0.000).

Discussion

It was observed from the findings that correlation between shuttle-run & hexagon agility test from table 1.2; shows that there was no correlation in between tests. This indicates that these test will may be used in a different purposes respectively. And also from table 2.2 shows that there was a correlation of Hexagon agility test which was measured by anti-clock & clock-wise. This indicates that both the procedures i.e. anti-clock & clock-wise may will gets the same result in any specific purposes.

Conclusion

From the present study, it can be concluded that there was no any relationship of shuttle-run & Hexagon agility test. Hence it can be concluded that each test will may be used in a differentiate purposes and also coefficient of correlation of anti-clock & clock-wise was statistically significant and it was concluded that in both the procedures i.e. anti-clock & clock-wise will gets the same result in any specific purposes.

References

1. http://www.answers.com/topic/agility.
2. http://www.topendsports.com/testing/tests/hexagon.htm.