



A Study on Relation of Agility and Reaction Time with Wrestler's Performance

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Abstract

Objective: The objective of the study was to find out the relationship of wrestler's performance with agility and reaction time. **Methodology:** The subjects for the present study were selected from state and national level participated wrestlers from Varanasi. A total number of 20 male wrestlers in the age group of 18-25 years were selected for the study. The data was collected of wrestlers through the required test. The level of significance chosen was 0.05. **Results:** Result of the study revealed that the agility was significantly correlated with the Wrestling performance while the leg reaction time was insignificantly correlated or low correlation was found with the wrestling performance.

Key Words: Wrestlers, Agility, Reaction Time.

1. Introduction:

Sport is an important ingredient of physical education and is a worldwide phenomenon today. The unprecedented popularity and better organization of sports activities and competitions would have been impossible without the recognition of the importance of sports competitions in the world. The world has realized the importance of sports for the modern civilizations.

According to Webster, sports means –diversion, amusement or recreation, a pleasant past time, a past time persuade in the open air, or having an athletic character as, hunting, fishing, racing, baseball, bowling or wrestling. Physical education is vitally concerned and involved with sport. Sport is in human's blood. It is recreation as well as competition. Basically sports are individual activities relating and revitalizing in nature and meant to provide opportunities to the individuals to make the 'fullest' and the most intelligent use of leisure time. Athletic contests have existed throughout the human history. Sports and war has been the very life of ancient civilization.

Many different skills and activities require the development of psychomotor abilities. Basic skills learned during early development, such as walking and jumping, require the development of such abilities. Many skills developed later in life for personal or professional reasons, such as typing on a keyboard or driving, also involve developing psychomotor abilities. Such abilities are based on applying a combination of more foundational psychomotor abilities, such as hand-eye coordination, multi-limb coordination, orientation, and control of movement speed.

Wrestling is a form of combat sport involving grappling type techniques such as clinch fighting, throws and takedowns, joint locks, pins and other grappling holds. A wrestling bout is a physical competition, between two (occasionally more) competitors or sparring partners, who attempt to gain and maintain a superior position. There are a wide range of styles with varying rules with both traditional historic and modern styles. Wrestling techniques have been incorporated into other martial arts as well as military hand-to-hand combat systems. The term wrestling is attested in late Old English, as wrestling (Glossing palestram).

1.1 Objective of the Study:

The objective of the study was to find out the Impact of certain psycho motor abilities on wrestler's performance.

2. Research Methodology:

2.1 Sample of the Study:

For the purpose of this study 20 male wrestlers were selected from Varanasi (state and national level). The

subjects for this study were ranged between 18-25 years of age.

2.2 Selection of Variables:

For this study, selected variables were explained under the category of psychomotor variables and performance of wrestlers.

- a) Agility
- b) Reaction Time

2.3 Criterion Measures:

S. No.	VARIABLES	TEST	UNITS
1	Agility	Shuttle Run	Second
2	Reaction Time	Ball Reaction Test	Centimetre

2.4 Administration of Test:

Shuttle Run Test

Purpose: To measure the speed in changing body position or direction of the subjects.

Equipments: Two blocks of wood (2"x2"x4") a stopwatch and marking powder. The subject should wear spikes or run bare foot.

Administration: Two parallel lines were marked on the ground ten yards apart. The blocks of wood were placed behind one of these lines. The subject started from behind the other line. On the command "GO" the subject ran to the line where the blocks were placed picked up one block and ran back to the starting line and placed the block behind the starting line and then he ran back and picked up the second block which he carried back across the starting line. Two trials were allowed with some rest in between to the subject.

Scoring: Two trials were allowed to each subject with some rest in between. The time of the better of two trials was recorded to the nearest 10th of a second as the score of the test items.

Ball Reaction Test

Equipments: Two wooden planks each of 4 meter length, one inflated volley ball, a supporting stand, whistle, pen, pad and paper etc.

Description: The two wooden planks of four meters each were kept incline by a supporting and at a distance of 1.50 meter away from the starting line. Outer side of one of the planks were graduated in centimetre. Volleyball was hold by the tester at the top of the plank and the subjects were stood behind the starting line, facing opposite to the plank. On whistle, the subject taken a turn and ran towards the planks and stopped the ball with both the hands which was dropped on the signal. Each subject was given a practice trail first.

Instruction: The ball was been stopped with both hands. The ball was not pushed upward while stopping.

Scoring: The score was the distance measured a point where the subject was stopped the ball. Only two trails were given and the best one was recorded as the score.

3. Analysis of data and results of the Study:

The results of the present study show that wrestling performance is depending upon the agility of National level wrestlers. Thus, this psychomotor variable may be considered as the predictor variables of wrestling performance. The other psychomotor variable i.e. reaction time taken for the purpose of the study was not found significantly related or very low relationship with wrestling performance. Results also shows that there is significant difference found among the correlated and no correlated selected psychomotor variables with wrestling performance and the predictor variables were dominating higher than the residual variables.

Agility is a one of the key psychomotor component of the wrestling performance where the player should move very faster within the prescribed area. Reaction Ability which were taken for the study were although poorly related with

performance of National level wrestlers but these may associate with the performance in higher (International) level Wrestlers.

Correlation

Predictor Variables	Criterion Variable	Coefficient of Correlation	Sig.
Agility		.693*	.001
Reaction Ability		.050	.833

Significantly correlated at (18) 0.05 level of significance = .468

Table reveals that wrestler's performance was found significantly related with agility where obtained values .693 were greater than tabulated value. Insignificant relationship was found with reaction time where calculated values .050 are less than tabulated value.

4. Summary & Conclusion:

For the purpose of the study, 20 male wrestlers (state and national level) were selected randomly. The results of the present study showed that wrestling performance is depending upon the agility of National level wrestlers. Thus, this psychomotor variable may be considered as the predictor variable of wrestling performance. The other psychomotor variable i.e. reaction time taken for the purpose of the study was not found significantly related or very low relationship with wrestling performance. Results also showed that there was significant difference found among the correlated and no correlated selected psychomotor variables with wrestling performance and the predictor variables were dominating higher than the residual variables.

Agility is one of the key psychomotor components of the wrestling performance where the player should move very faster within the prescribed area. Reaction Ability which were taken for the study were although poorly related with performance of National level wrestlers but these may associate with the performance in higher (International) level Wrestlers.

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