Reaction time between college level football players: A comparative study

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Abstract
The purpose of the study was to find out the reaction time level among M.E.T. College Of Education football players & Govt Degree College Sopore football players affiliated to University of Kashmir. Materials and Methods: Data was collected on individually through 30 subjects (15 from M.E.T. College of Education & 15 from Govt Degree College Sopore) affiliated to University of Kashmir. The age range between 18±28 years was selected as the subject for the study. Simple random sampling was used for collection of data. The data was analyzed using descriptive and t test. The level of significance was fixed at 0.05. The reaction time test was used in the presented study in relation to reaction time variable used in the presented study. Modified tools 1 meter ruler and calculator was used while taking this test. Results: The mean value and standard deviation of M.E.T. College Of Education football players & Govt Degree College Sopore football players in relation to reaction time was (14.53 ± 13.66) and (2.87 ± 2.41) respectively. Calculated t-ratio of M.E.T. College Of Education football players & Govt Degree College Sopore football players in relation to reaction time was 0.90 in relation to reaction time. Conclusions: Insignificant difference of reaction time level among M.E.T. College Of Education football players & Govt Degree College Sopore football players of kashmir University students was found”.

Keywords: reaction time & football players

Introduction
Reaction time is how quickly your brain can respond to a stimulus and initiate a response. This is important in most sports. The most obvious being responding to the gun at the start of a race, but also a goalkeeper saving a penalty, or a badminton player reacting to a smash shot. The examples in sport are endless. Quickness is the ability to move in the absence of much external force and without any wind-up. How fast are your hands and feet in simple unloaded movements? Being quick is related to being explosive and vice versa but a person can be very quick but not really fast in a sprinting sense, and vice versa. There’s a very strong genetic component when it comes to being quick. Take a group of athletes and see how many times they can stand and tap their feet in place over a given interval. Or see how many punches you can throw in a given time interval. Measurements like those are good measurements of pure quickness. As for improving voluntary quickness in the absence of reaction time, one good way to do it is to practice being quick. Pick a few movement patterns in your sport and attempt to execute them as quickly as possible. A boxer might execute a 5 or 10 punch combo as quickly as possible. A martial artist might execute a kicking combo. A football player might perform a footwork pattern. A basketball player might execute a jab step and crossover move as quickly as possible. General quickness drills applicable to all athletes include things like low line hops and hurdle hops. Draw a line on the ground and hop back and forth over it as quickly as possible for 10 seconds. You oughta eventually be able to get 50 or 60 hops with both legs and 30-40 on one. Various agility related drills also have some value here. The biggest detriment to quickness related drills is excessive muscle tension. Try to be relaxed as possible. Maximum speed at minimum effort is a cue that works well.

Hypothesis of the study
On the basis of available literature and discussion with experts, as well as the research scholars own understanding, It was hypothesized that there would be significant difference in reaction
Materials and Methods
The sample comprised of Total 30 subjects (15 from M.E.T. College of Education & 15 from Govt Degree College Sopore) of Kashmir University. The age ranged from 18 to 28 years was selected for the presented study. For the presented study, the test of reaction time was taken by the researcher. To analysis the data, mean, standard deviation and t-ratio was used at significant value of 0.05 levels. Only one variable was selected as independent variable for the presented study i.e. Reaction Time.

Results and Discussions
Mean and standard deviation of M.E.T. College Of Education & Govt Degree College Sopore football players of university of kashmir with respect to reaction time to measure the quickness among them.

Table 1: Statistical comparison Between M.E.T. college of education & govt degree college sopore in relation to reaction time.

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>D.O.F</th>
<th>T-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.E.T College Of Education</td>
<td>15</td>
<td>14.53</td>
<td>2.87</td>
<td>28</td>
<td>0.90</td>
</tr>
<tr>
<td>Govt. Degree College Sopore</td>
<td>15</td>
<td>13.66</td>
<td>2.41</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Graph 1: Graphical representation of M.E.T. college of education & govt degree college sopore in relation to reaction time

For the presented study, the subjects were selected from M.E.T. College of Education & Govt Degree College Sopore affiliated to university of kashmir. In order to fulfilled the study, 30 subjects were selected (15 from M.E.T. College of Education & 15 from Govt Degree College Sopore) affiliated to Kashmir University. The subjects were selected by simple random sampling method. The data pertaining to the study was collected through reaction time test by the direct contact of the researcher to these football players. The above table reveals that there was significant difference between mean of M.E.T. College Of Education football players group & Govt Degree College Sopore football players group, because mean of M.E.T. College Of Education group was 14.53 which is greater than the mean of Govt Degree College Sopore group which is 13.66, so the mean difference was found as 0.87. To check the significant difference between M.E.T. College Of Education & Govt Degree College Sopore football players, the data was again analyzed by applying ‘t’ test. Before applied ‘t’ test, standard deviation was calculated between M.E.T. College Of Education group & Govt Degree College Sopore group of football players. Where S.D. of M.E.T. College Of Education group was 2.87 and S.D. of Govt Degree College Sopore group was 2.41 and the calculated value of ‘t’ was found 0.90 which was lesser than tabulated t=2.0244 at 0.05 level of significance. Thus it was proved that there was insignificant difference of reaction time among M.E.T. College of Education & Govt Degree College Sopore football players in relation to reaction time.

References