Impact of small sided games on selected physical variable of university men science students

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Abstract

Objective: To examine the impact of small sided games on selected physical variable of university men science students.

Method: The 15 men participants were selected by random sampling method from Pondicherry university science students. Six weeks of selected small sided games (Dodge ball, socket game, back board ball, beach cricket, 7 on 7 football, 6 v/s 6 basketball) of 40 min. duration of training is given. Pre-test and post-test were conducted on selected physical variable. i.e. Speed by administering 50 m. dash. Statistical technique of T-ratio was used in this study.

Results: The results of the study indicate that improvement in speed was significantly greater, as a result of the practice of small-sided games.

Keywords: Small sided games, dodge ball, socket game, back board ball, beach cricket, university science students

1. Introduction

SSG started as an optimal task to optimize training time by fulfilling the broad range of fitness requirements without compromising skill performance and decision-making. Therefore, they are used extensively to improve physical fitness levels and also technical and tactical performance in a wide variety of games. After all, in its basic form a small-sided games is exactly what it sounds like, a game between two teams of fewer than normal players – normally 4- or 5-a-side. The smaller pitch and the less number of participants during small-sided games, each player comes into contact with the ball and deals with common game situations more often.

1.1 Small sided games used for the study are

Dodge ball, socket game, back board ball, beach cricket, 7 on 7 football, 6 v/s 6 basket ball

1.2 Physical Effects of Small Sided Games

The importance of using different small-sided games by changing each time the number of participants. From a practical point of view, games with a larger number of players seem to be used for tactical and technical improvement, whereas games with a smaller number of players are mainly used for physical conditioning improvement. In order to support this hypothesis, an examination of the instant effects of games with a different number of players on physical performance and on technical characteristics is needed. Small-sided games are very popular not only in adult soccer players but also in young players of different games and their use begin from an early age. The aim of the present study was to examine, their effect on physical fitness. In this study I tried to put together An Introduction to Small-Sided Games to show you how the small-sided game in its simplest form can be developed to physical fitness.

1.3 Role of science students towards physical activities

- The science lab is used to investigate chemistry, biology, and physics topics. Students are required to understand laboratory safety rules and how to use equipment.
- Despite the prevalence of technology on campuses, a new study indicates that computers
alone can’t keep students from falling into their same weak study habits and also there is not much time for daily physical activities.

- In the space of one generation, college and university students have gone from studying with highlighters and wire notebooks to laptops, notebooks and, now, iPods’.
- They include daily instruction outlines, classroom assignments, special projects, homework, and tests.
- Lesson plans should develop an understanding of complex systems, generate new ideas, make predictions, and apply standard scientific law to solve problems.

Due to these daily duties of science students they hardly find time towards daily regular physical activities. So, this motivated me to do a present study on university science students.

1.4 Purpose of the Study
The purpose of the study was to find out the “impact of small sided games on selected physical variables of university men science students”.

1.5 Hypothesis
It was hypothesized that there would be significant change by the effect of small sided games on selected physical variable of university men science students.

2. Methodology
2.1 Selection of the Subjects
The purpose of this study was to determine the “impact of small sided games on selected physical variable of university men science students”. The study was conducted on 15 men students. The subjects were selected from the Pondicherry University. All the 15 students acted as experimental group. No control group was taken. Nature and importance of this study was explained to the subjects and they were expressed their willingness to participate as subjects for this study.

2.2 Selection of Variables
The investigator reviewed the available scientific literature on the basis of discussion with experts, feasibility criteria, and availability of equipment’s and relevance of the present study variables

2.3 Physical Variable: Speed

2.4 Selection of Test
Speed - 50 meters dash (sec)

2.5 Experimental Design
The subjects were chosen for the study was randomly selected by random sampling method. The investigator has selected 15 science students from the Pondicherry University. The study was formulated as Random sampling method. The subjects were tested on the speed.

2.6 Collection of Data
In order to collect the data test were administrated before and after six weeks training the score were recorded in the initial and final readings for the group.

2.7 Statistical Technique
The data collected from the group on the selected variable were statistically examined to find out whether there was any significant difference or not between the pre-experimental testing and post-experimental testing. ‘t’ ratio was employed. The level of significance was fixed at 0.05 level of confidence.

3. Results
The results of the study indicates that improvement in speed was significantly greater, as a result of the practice of small-sided games. It was hypothesized that the practice of small-sided games would cause more improvement in speed. Hence the hypothesized was accepted.

3.1 The Level of Significance
The data collected were statistically analyzed by applying ‘t’ ratio and the level of significance was fixed 0.05 levels and the results are presented.

Table 1: Computation of Mean, Standard Deviations, Mean Difference, Standard Error and ‘T’ ratio for 50 mts Dash on experimental group.

<table>
<thead>
<tr>
<th>Test</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Standard error mean</th>
<th>Mean difference</th>
<th>‘t’ ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre – test</td>
<td>8.0667</td>
<td>.30006</td>
<td>.07748</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post – test</td>
<td>7.9113</td>
<td>.27547</td>
<td>.07113</td>
<td>.15533</td>
<td>8.750</td>
</tr>
</tbody>
</table>

* Significant at 0.5 level of confidence, required table value is 2.145 for 14 degrees of freedom.

![Table 1](image1.png)

Fig 1: Bar diagram showing the mean difference of pre-test and post-test in 50 mts dash on speed performance of experimental group.
4. Discussion
By observing the obtained results in table – 1 it shows that the mean scores of speed for experimental group pre-test is 8.06 and post-test is 7.91. the mean difference was. 155. the obtained t-ratio was 8.750 which was greater than the table value i.e. 2.145 for 14 degrees of freedom so it is significant at 0.05 level of confidence.

5. Conclusion
Within the limitation of the study and on the basis of the obtained results from this study, the following conclusions had been drawn: It was concluded that the participating in 6 weeks of small-sided training program had significantly improved speed.

6. References