A comparative study of mental imagery ability between individual and team game players from Pune city

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Abstract
Most of the athletes use mental imagery to learn new skills as well as facilitate their performance in competitive situations. Athletes of individual and team games differ physiologically and in many other ways. Thus, the purpose of the present research is to compare the mental imagery ability of individual and team game players. For the present study sample of 100 boys i.e 50 players from individual games (Badminton, Table Tennis, Tennis, Gymnastics & Weightlifting) and 50 players from team games (Basketball, Cricket, Handball, Kabaddi & Football) were selected as subject using purposive sampling technique. The research is descriptive comparative survey where 30 items questionnaire of SIQ (Hall; et al.; 1998) based on likert scale is used for data collection. On analysing the available data using descriptive statistics mean performance for mental imagery of individual game was 192.54 (SD=19.637) and of team game 161.80 (SD=28.880). The above groups were compared using independent sample ‘t’ test and the result shows there is significant difference (p=0.001) between individual and team game players from pune city. From which it can be concluded that individual game players have better mental imagery ability than team game players.

Keywords: Mental imagery, individual game, team game.

Introduction
The term “mental imagery”, “mental practice”, “mental rehearsal”, and “mental simulation” are used interchangeably; mental imagery appears to be the major component of mental practice (Hall, 1985) [2]. Richardson (1967) defined mental practice as “the symbolic rehearsal of a physical activity in the absence of any gross muscular movements”. Richardson’s definition relates mental imagery to motor learning and motor responses, which can be beneficial for learning and maintaining motor skills. Mental imagery consist of intentionally bringing images to mind or rehearsing performance without actually physically enacting the performance. Mental imagery is not limited to visualisation, and it has been recommended that it involves all senses like sights, sounds, smells, touch and taste (vealey & Greenleaf, 2006; vealey & Walter, 1993) [4, 5].

Mental Imagery is a well-known mental training strategy in the sport setting, and has been shown to be a highly effective performance-enhancing technique among athletes of all ages (Gregg & Hall, 2006; Munroe-Chandler, Hall, Fishburne, & Strachan, 2007) [4], sport types (Munroe, Hall, Simms, & Weinberg, 1998), and competitive levels (Hall, Rodgers, & Barr, 1990). Mental imagery is more effective if its occurs directly prior to performance and after skills have been developed, the use of imagery supplements regular physical practice (Hall, 2001) [1]. Presently, most practitioners use the broader term mental imagery to describe structured mental practice techniques to create or recreate an athletic performance (Holmes & Collins, 2001; Vealey & Greenleaf, 1998) [6]. Athletes use mental imagery in competition and practice (Hall, 2001; Munroe giacobbi, Hall & Weinberg, 2000, white & hardy, 1998) [1] the regular practice and use of these mental skills is directly related to optimal athletic performance (Jackson, 1995; Jackson & csikszenmtihalyi, 1999; Jackson & Robert, 1992).

The many researchers conducted to date examining whether type of sport influences imagery use.
Athletes in individual sports reported more frequent problems with anxiety and confidence, as well as experienced differences in mental practice Mahoney et al. (1987). Hall et al. (1998) considered individual and team sport athletes functions differently with their imagery. Individuals perform fully on their own strength and abilities whereas team game players are performing in the team environment where they take help of other team players to reach their final goal. Hence, the purpose of the study is to compare the mental imagery ability between individual and team game players.

Material and method
For this study a total No. of 100 i.e. (50 individual and 50 team game players) mean age (22.04±1.37) from Pune city was selected as sample of the study, using purposive sampling technique. The groups were divided as follows in table no.1, which was further used for collecting and analysing data.

<table>
<thead>
<tr>
<th>Individual games</th>
<th>No. of sample</th>
<th>Team games</th>
<th>No. of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Badminton</td>
<td>10</td>
<td>Cricket</td>
<td>10</td>
</tr>
<tr>
<td>Tennis</td>
<td>10</td>
<td>Handball</td>
<td>10</td>
</tr>
<tr>
<td>Table Tennis</td>
<td>10</td>
<td>Basketball</td>
<td>10</td>
</tr>
<tr>
<td>Gymnastics</td>
<td>10</td>
<td>Football</td>
<td>10</td>
</tr>
<tr>
<td>Weightlifting</td>
<td>10</td>
<td>Kabaddi</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>Total</td>
<td>50</td>
</tr>
</tbody>
</table>

For this research, descriptive comparative method was used. Descriptive statistics (mean, Standard Deviation) and independent sample t test was used for the evaluation of the differences between both the groups, to test the hypothesis at 0.05 level of significance.

In this study the researcher has used the mental Imagery Questionnaire (SIQ, Hall et al., 1998) was a 30 item inventory. Each item is rated on a 7-point Likert scale anchored at 1 = rarely use that function of imagery and 7 = often use that function of imagery.

Procedure
The researcher will explain details about the questionnaire to selected players and then asked to complete SIQ. Researcher will collect questionnaire and will do scoring based on player’s responses. For the collected score compute mean, Standard Deviation (SD) and compare using Independent "t" test to find out the mental imagery ability amongst individual and team game players.

Result of the study
Given below in Table no.2, which shows the descriptive statistics, where mean score of mental imagery for individual game players was 192.54 with standard deviation 19.637 and the mean of mental imagery for team game players was 161.80 with standard deviation 28.880.

Table no.3 shows comparison between individual and team game players from Pune city. Since the significance value is less than 0.05, equal variance not assumed. On comparing mean performance the computed mean difference was 30.74 and the calculated ‘t’ value was 6.224 for df 86.329 which shows significant difference between individual and team game players at 0.05 level of significance(p=.001). Hence the null hypothesis is rejected and research hypothesis is retained.

Discussion
The present study shows that there exists significance difference between individual and team game players which is similar to the study by Ville Peltomäki (2014). In his study he has studied mental imagery of individual and team sports and the purpose was to assess if both groups differ in each other. He at last concluded that there is significant difference between individual and team sports.

Conclusion
On the basis of the result obtained in the study the researcher made the conclusion that significant difference exist between individual and team game players on mental imagery. It was further concluded that mental imagery of individual game players is better than team game players.

References
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