MACHIAVELLIANISM AND LOCUS OF CONTROL AMONG INDIVIDUAL AND TEAM GAME PLAYERS

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Abstract: The purpose of the study was to compare the Machiavellianism and locus of control among intercollegiate level individual and team game players. The present study was conducted on 120 players, playing at intercollegiate level (Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-Maharashtra) by purposive sampling method. 60 players were individual game players (30 male players and 30 female players), and 60 players were team game players (30 male players and 30 female players). The data were collected through Machiavellianism scale (Rai & Gupta, 1982) and locus of control scale (Hasnain & Joshi, 1982). The Mean, SD and univariate two way ANOVA was applied to assess the differences between individual and team game players. Results revealed that, team game players and male players are more Machiavellian oriented than individual game players and female players respectively. No significant difference is found between individual and team game players in terms of their locus of control. But, it has been found that male players are internally oriented than female players.

Keywords: Machiavellianism, locus of control, individual game players and team game players.
Research Paper:

Introduction:

Sport performance is influenced by various factors in modern sport era, such as anthropometric, biomechanical, physical, physiological, psychological, social-economical, environmental, technical etc. Psychological factor is an important factor in these factors. Personality is the central factor in these psychological factors and there are huge differences among us in the ways we think, feel and behave in response to particular situations (Devon, 2000; Allport, 1987; Rotter, 1956; Bandura, 1925).

For success or failure in any sport, innate characteristics of sport persons are more important than the characteristics of that sport itself. Several psychologists believe that quality of sport performance and participation in sport are determined by personality (Cox, 2002).

Since 1960s, three different approaches have dominated the investigations of individual differences that is, type theories, trait theories and psychoanalytic theories (Mischel, 1984).

According to Janda and Klenke-Hamel (1982) there are four major dimensions of personality - trait, motivation, temperament and character. Trait dimension is a very vital and imperative dimension, which includes seven dimensions, i.e. introversion-extroversion, neuroticism-stability, psychoticism, information processing, internal-external control, authoritarianism, and Machiavellianism (Singh, 2005).

No doubt, extensive work has been reported in the area of Machiavellianism and locus of control during last decade and the concept has diversified application in various fields of human activity. Therefore, the purpose of the study was to compare the Machiavellianism and locus of control among intercollege level individual and team game players.

Machiavellianism: The Machiavellianism concept framed by Christie and Geis (1970) depends on thoughts of Italian political advisor and philosopher Niccolo Machiavelli (1530). Machiavellianism refers to a personality trait, which sees in person to focus on their own interest. In the psychological literature, Machiavellianism refers to the predisposition to cynically view others as fundamentally dishonest and gullible, and to unhesitatingly consider and use other people as targets of exploitation for personal gain (Christie & Geis, 1970; Sutton & Keogh, 2000; Hawley, 2006).

Locus of Control: The locus of control is the framework of Rotter's (1954) social learning theory of personality. Locus of control is a psychological construct that refers to people’s belief
about whether they are personally responsible for what happens to them (Rotter, 1960). The people with internal locus of control are more likely to attribute success to their own abilities and people with external locus of control attribute success to luck and chance.

**Objectives:**

1. To study intercollegiate level individual and team game players and compare their Machiavellianism and locus of control.
2. To find out the gender differences among intercollegiate level individual and team game players in terms of their Machiavellianism and locus of control.

**Hypotheses:**

1. Team game players would be more Machiavellian oriented than the individual game players.
2. Male players would be more Machiavellian oriented than the female players.
3. There would be significant interaction between types of players and gender in terms of the Machiavellianism.
4. Individual game players would be at higher level of internal locus of control whereas team game players would be at higher level on external locus of control.
5. Male players would be at higher level of internal locus of control whereas female players would be at higher level on external locus of control.
6. There would be significant interaction between types of players and gender in terms of the locus of control.

**Method: Sample and Research Design:** In the present study, the researcher has selected 120 players, playing at intercollegiate level by purposive sampling method out of them 60 were individual game players (30 male players and 30 female players), and 60 were team game players (30 male players and 30 female players). All of the selected individual and team game players were students undergraduate level (age group 18 to 21 years) and they have played minimum one times at intercollegiate level sport competition (Aurangabad) in selected individual games (badminton, and chess) and team games (football and volleyball). 2 x 2 research factorial design used for this study.

**Variables:**

Independent variables

Individual and team game players
Male and female players
Dependent variables
Machiavellianism
Locus of control

**Research tools:**

**Machiavellianism Scale (Mach IV) 1982:**
The Machiavellianism scale (Mach IV) developed by S. N. Rai and Manjula Gupta in 1982 depend on Machiavellianism scale (Mach IV, 1970) by Christie and Geis. This scale consists of 20 items. The test-retest reliability coefficient is .92 and the validity of scale is .86.

**Locus of Control Scale (LCS) 1992:**
The Locus of Control Scale (LCS) developed by N. Hasnain and D.D. Joshi in 1992 depends on Rotter's original I-E scale. This scale has 36 items in total, among them there are 16 positive items, which reveals internal locus of control and 20 negative items, which reveals external locus of control. The test-retest reliability of scale is .76; the validity of scale is .76.

**1. Procedure:**
Initially, the researcher visited The Director, Department of Sports, Dr. B. A. M. University Aurangabad and sought formal and written permission of data collection and prepared list of samples as per the record maintained in his office. After permission of data collection, the researcher met physical directors of randomly selected colleges in Aurangabad district and detailed discussions were held with them regarding the objectives of research and data collection procedure.

At the time of data collection, rapport has been established with individuals and before administration of tests, their consent for voluntarily participations was confirmed. Then the researcher gave instructions with the help of test manual. Initially, players were instructed to fill up the personal information on the test. Firstly, Machiavellianism scale developed by Rai and Gupta (1982) was provided to players. After completion of the test, all papers were collected by researcher carefully and taken a rest for ten minutes. After the break of ten minutes, second test was given for locus of control scale developed by Hasnainand Joshi (1992). Finally, above two psychological tests were completed successfully and the players who participated were appreciated and given a vote of thanks.
2. Statistics techniques
In the present research Mean, SD, two way (2x2)ANOVA etc. statistical techniques were used for the data analysis and interpretation.

Results:

Table 1: Descriptive statistics of Machiavellianism

<table>
<thead>
<tr>
<th>DVs</th>
<th>Type of Players</th>
<th>Gender</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Individual Game Players</td>
<td>Male</td>
<td>106.67</td>
<td>21.86</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>99.56</td>
<td>17.17</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>103.12</td>
<td>19.81</td>
<td>60</td>
</tr>
<tr>
<td>Mach</td>
<td>Team Game Players</td>
<td>Male</td>
<td>118.93</td>
<td>11.77</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>110.97</td>
<td>7.26</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>114.95</td>
<td>10.49</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Male</td>
<td>112.80</td>
<td>18.47</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>105.27</td>
<td>14.28</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>109.03</td>
<td>16.87</td>
<td>120</td>
</tr>
</tbody>
</table>

Mach= Machiavellianism
The table 1 shows that the mean score and standard deviation of Machiavellianism is 103.12 and 19.81 for individual game players and 114.95 and 10.49 for team game players. This table also shows that the mean score and standard deviation of Machiavellianism is 112.80 and 18.47 for male players and 105.27 and 14.28 for female players.

Table 2: Summary of the ANOVA results on Machiavellianism variable

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of Players (A)</td>
<td>4200.83</td>
<td>1</td>
<td>4200.83</td>
<td>17.42**</td>
<td>.131</td>
</tr>
<tr>
<td>Gender (B)</td>
<td>1702.53</td>
<td>1</td>
<td>1702.53</td>
<td>7.06**</td>
<td>.057</td>
</tr>
<tr>
<td>A X B</td>
<td>5.63</td>
<td>1</td>
<td>5.63</td>
<td>.023NS</td>
<td>.000</td>
</tr>
<tr>
<td>Within error</td>
<td>27970.86</td>
<td>116</td>
<td>241.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>33879.86</td>
<td>119</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1460472</td>
<td>120</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** \( F_{.01(1,116)} = 6.84 \), \( *F_{.05(1,116)} = 3.92 \), \( NS = Not\ significant \)

Eta Squared effect size, .01= small, .06= moderate, .14= large effect (Cohen, 1988).

When the individual game players and team game players were compared on their mean score of Machiavellianism, the derived \( F_{(1,116)} = 17.42, p<.01 \), indicated that there was statistically significant difference between the individual game players and team game players in their
Machiavellianism trait. The associated eta square value indicates that the effect is moderate (.13). The $F = 7.06$ ($P < .01$) for the second main effect, that is, for gender is statistically significant at .01 level. The associated eta square value indicates that the effect is small (.05). The interaction between types of players and gender is not significant for Machiavellianism, $F (1, 116) = .023$ ($p$NS). This suggests that there is relationship between types of players and Machiavellianism and is not moderated by gender.

**Table 3: Descriptive statistics of locus of control**

<table>
<thead>
<tr>
<th>DVs</th>
<th>Type of Players</th>
<th>Gender</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOC</td>
<td>Individual Game Players</td>
<td>Male</td>
<td>59.06</td>
<td>5.85</td>
<td>30</td>
</tr>
<tr>
<td>LOC</td>
<td>Individual Game Players</td>
<td>Female</td>
<td>50.96</td>
<td>10.75</td>
<td>30</td>
</tr>
<tr>
<td>LOC</td>
<td>Individual Game Players</td>
<td>Total</td>
<td>55.01</td>
<td>9.50</td>
<td>60</td>
</tr>
<tr>
<td>LOC</td>
<td>Team Game Players</td>
<td>Male</td>
<td>56.26</td>
<td>7.55</td>
<td>30</td>
</tr>
<tr>
<td>LOC</td>
<td>Team Game Players</td>
<td>Female</td>
<td>52.46</td>
<td>8.22</td>
<td>30</td>
</tr>
<tr>
<td>LOC</td>
<td>Total</td>
<td>Male</td>
<td>57.66</td>
<td>6.84</td>
<td>60</td>
</tr>
<tr>
<td>LOC</td>
<td>Total</td>
<td>Female</td>
<td>51.71</td>
<td>9.52</td>
<td>60</td>
</tr>
<tr>
<td>LOC</td>
<td>Total</td>
<td>Total</td>
<td>54.69</td>
<td>8.78</td>
<td>120</td>
</tr>
</tbody>
</table>

LOC= *Locus of Control*

The table 3 shows that the mean score and standard deviation of locus of control is 55.01 and 9.50 for individual game players and 54.36 and 8.06 for team game players. This table also shows that the mean score and standard deviation of locus of control is 57.66 and 6.84 for male players and 51.71 and 9.52 for female players.

**Table 4: Summary of the ANOVA results on locus of control variable**

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>$\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of Players (A)</td>
<td>12.67</td>
<td>1</td>
<td>12.67</td>
<td>.185NS</td>
<td>.002</td>
</tr>
<tr>
<td>Gender (B)</td>
<td>1062.07</td>
<td>1</td>
<td>1062.07</td>
<td>15.46**</td>
<td>.118</td>
</tr>
<tr>
<td>A X B</td>
<td>138.67</td>
<td>1</td>
<td>138.67</td>
<td>2.01NS</td>
<td>.017</td>
</tr>
<tr>
<td>Within error</td>
<td>7968.16</td>
<td>116</td>
<td>68.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>9181.59</td>
<td>119</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>368123</td>
<td>120</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**$F_{.01}(1,116) = 6.84$, $F_{.05}(1,116) = 3.92$, NS = Not significant**

Eta Squared effect size, .01 = small, .06 = moderate, .14 = large effect (Cohen, 1988).
When the individual game players and team game players were compared on their mean score of locus of control, the derived $F(1, 116) = .185$, $p > .05$, indicated that there was no significant difference between the individual game players and team game players in their locus of control. When male and female players were compared on their scores on their locus of control, the derived $F(1, 116) = 15.46$, $p < .01$, indicated that there was statistically significant gender difference on locus of control of the participants. The interaction between types of players and gender is not significant for locus of control, $F(1, 116) = .201$; $p > .05$). This suggests that there is no relationship between types of players and locus of control and is moderated by gender.

**Conclusions**:  
1. Team game players are found more Machiavellian oriented than individual game players.  
2. The male players are found more Machiavellian oriented than female players.  
3. No significant difference is found between the male and female individual game players and the male and female team game players in terms of their Machiavellianism. The gender difference in Machiavellianism is not noted in both individual and team game players.  
4. No difference is found between individual and team game players in terms of their locus of control.  
5. It has been found that male players are internally oriented than female players in terms of locus of control.  
6. Both individual and team game male players are more internally oriented than individual and team game female players. The gender difference in terms of locus of control is found in individual and team game players.

**References**:


Rai, S. N. & Gupta, M. D. (1982). A Scale of Machiavellianism (Mach IV scale). *Department of the Psychology, Meerut University, Meerut*.


