THE SOCIAL INTELLIGENCE AMONG FEMALE HOSTEL RESIDING COLLEGE STUDENTS BELONGING TO DIFFERENT ACADEMIC STREAMS

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Abstract:

Every youth is expected to learn to participate effectively in society and to acquire the necessary social competence. The social skill which helps an individual towards coping with others and social relationships is termed as social intelligence. The present study was taken up to find out the social intelligence among female hostel residing college students belonged to different academic streams. A total sample of 150 college students aged between 17-25 years belonged to three academic streams; with 50 hostel residing students from each academic stream were selected for the study. Professor N. K. Chadda and UshaGanesan Social Intelligence Scale (1986) were used to collect the information for the present study. Statistical analysis was done using ANOVA, students’ t test and chi square test. Majority of the hostel science stream respondents had average level social intelligence while commerce and arts stream hostel residing respondents had low level of social intelligence. A strongly significant difference was observed among hostel respondents belonged to different academic streams for overall social intelligence

Keywords: Hostel residing, social intelligence, patience, social skills, memory

Introduction:

Youth is the time of life when one is young, and often means the time between childhood and adulthood. It emerges as a period where the physical, psychological and social formations lend them experiencing more frequent and more intense emotions than younger and older individuals (Larson & LampamanPetaits, 1989). It is also a time when they begin to assert themselves as distinct human beings.
Every youth is expected to learn to participate effectively in society and to acquire the necessary competence to do so mainly through interpersonal relationships. As a result of substantial interaction with parents, teachers, employers and peers, who exhort, assess, reward and punish him; youth competence is continuously being evaluated. Thus the place of them in this social network of relationships influences their further development and also widens their social world. Hence they need to acquire necessary social skills and sensivities essential for the formation of healthy interpersonal relationship, which would lead to an active and successful social life. The social skill which helps an individual towards coping with others and social relationships is termed as **social intelligence**.

Social intelligence is the ability to interact in a socially acceptable way with others (Merrel&Gimpel, 1998) and to get them to cooperate with you sometimes referred to simplistically "people skills". This intelligence includes an awareness of situations and the social dynamics that govern them and knowledge of interaction styles and strategies that can help a person achieve his or her objectives in dealing with others. It also involves a certain amount of self-insight and a consciousness of one's own perceptions and reaction patterns which helps to avoid or solve conflicts appropriately (Merrel&Gimpel, 1998). Effective social intelligence makes individual feel valued, respected, affirmed encouraged or competent and make a person much more effective in dealing with other, on the other hand poor social intelligence leads to the inability to connect with people and influence them negatively. These are the people who experience depression, loneliness, isolated etc.

Social intelligence comprises of dimensions viz. Patience, Co-cooperativeness, Confidence level, Sensitivity, Recognitions of social environment, Tactfulness, Sense of humours and memory (Dr. N.K Chadda and Ganeshan, 1986).

**Patience** is considered to be being Calm, endurable under stressful situation; while **Co-cooperativeness** measures the ability to interact with others in a pleasant way to be able to view matters from all angles; The **Confidence Level** is how one form trust in one self and one’s chances; the fourth dimension **Sensitivity** is to be acutely aware of and being responsive for ones’ own situation; the **Recognition of social environment** is an individual ability to perceive the nature and atmosphere of the existing situation; **Tactfulness** helps for a delicate perception of the right thing to say or do; having **Sense of humours** gives individual capacity to feel and cause amusement; to be able to see the lighter side of life; and the last dimension **Memory** is an ability to remember all relevant issues; names and faces of people.

However, in today’s society, the way we interact with others has changed dramatically. We now rely more on a variety of methods to communicate with others, from traditional face-to-face interactions with known individuals to a much wider social network of known and unknown individuals in our social media distribution lists. With globalization, there is also an increasing need to successfully interact with people from different backgrounds and countries. Given these changes, the development of social intelligence, and
specific skills within it, is more important now than ever before, for effective social interaction and our personal well-being (Dr Jennifer Lau 2016). Hence it is our responsibility to prepare our young people so they can thrive in this challenging world. Michael Lynas 2016 states Social intelligence is considered to be a very valuable human quality that nurtures creativity, teamwork and interpersonal skills and further he expresses that employers are now consider social intelligence skills as more integral to progression at work than academic intelligence. Pointing out the social status of present youth Lynas (2016) elucidate in his research study 86% of teenagers said they were sometimes nervous about meeting people from different backgrounds to their own and loneliness is a problem for many teens, with time on screens not being a substitute for real face time with friends.

However researchers are opining that helping youth with good and healthy interaction with friends, neighborhoods and other people in the society enhances their social confidence, strengthens friendship, improves the team work skills etc.

As social intelligence is still consolidating across the youth, it is an important time to develop and refine these emerging abilities and skills in them. Offering opportunities to do this could have beneficial impacts on adulthood.

Social intelligence being a multifaceted, complex issue and the earlier young people learn about and develop skills in this area the more comfortable and effective they will be when they enter the workplace. Hence it becomes necessitates to explore the ways in which this skill set can be nurtured in young people, in order to help them prepare for a fast changing jobs market, and to enhance their well-being in adulthood.

In view of the above discussion, the present study has been envisaged to assess the social intelligence among college students. The literature on youth shows wide areas of differences within that population. Mudasir (2005), Suresh Prabu (2015), Bhatia (2017),Hardhik (2017); etc. in their research studies on college students social intelligence have found that academic streams have an influence on their social intelligence. Hence the researcher was also interested to know whether academic streams have any influence on social intelligence of the respondents selected from Bangalore city.
Objectives of the present study:

1. To compare social intelligence among hostel residing respondents belonging to different academic streams.
2. To assess the following social intelligence dimensions among the respondents.
   a) Patience
   b) Cooperativeness
   c) Confidence
   d) Sensitivity
   e) Recognition of social environment
   f) Tactfulness
   g) Sense of humor
   h) Memory

Hypothesis:

1. There is no significant difference in the social intelligence among hostel residing respondents belonging to different academic streams.
2. There is no significant association between academic streams and the following social intelligence dimensions among hostel residing respondents.
   a) Patience
   b) Cooperativeness
   c) Confidence
   d) Sensitivity
   e) Recognition of social environment
   f) Tactfulness
   g) Sense of humor
   h) Memory

Research design:

PHASE: I- Identification of appropriate tools

Initially, an extensive survey was conducted to identify the most appropriate tool for assessing the social intelligence of the respondents.

1. Professor N. K. Chadda and UshaGanesan Social Intelligence Scale (1986) were identified as the most appropriate tool for the present study.
2. It measures social intelligence in eight areas- patience, cooperativeness, confidence level, sensitivity, recognition of social environment, tactfulness, sense of humour, and memory.
3. Number of items present under each dimension in the scale.
<table>
<thead>
<tr>
<th>Dimension</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Patience</td>
<td>8</td>
</tr>
<tr>
<td>b) Co-cooperativeness</td>
<td>11</td>
</tr>
<tr>
<td>c) Confidence</td>
<td>8</td>
</tr>
<tr>
<td>d) Sensitivity</td>
<td>9</td>
</tr>
<tr>
<td>e) Recognition of Social Environment</td>
<td>3</td>
</tr>
<tr>
<td>f) Tactfulness</td>
<td>7</td>
</tr>
<tr>
<td>g) Sense of Humour</td>
<td>8</td>
</tr>
<tr>
<td>h) Memory</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>66</strong></td>
</tr>
</tbody>
</table>

**PHASE: II – Selection of sample**

Initially the researcher considered the different colleges located nearby research centre for the selection of sample. For the logistic and geographical convenience of the researcher, Smt. V.H.D Central Institute of Home Science, Sheshadri road, Bangalore-560001 and Maharani Arts and Science College, Sheshadri road, Bangalore-560001 were selected for identification of sample. It was decided to take the sample studying in science, arts and commerce academic streams from the identified colleges. Students in the age group of 17-25 years with 50 hostel residing students from each academic stream were identified for the study. Thus, total sample of 150 college students were selected for the study. The sample has been selected through random sampling technique.

<table>
<thead>
<tr>
<th>Different streams</th>
<th>Hostelite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td>50</td>
</tr>
<tr>
<td>Arts</td>
<td>50</td>
</tr>
<tr>
<td>Commerce</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>150</strong></td>
</tr>
</tbody>
</table>
PHASE: III- ADMINISTRATION OF THE TOOLS.

Initially a rapport was built with the respondents by asking simple questions. An informal consent was obtained by the respondents for the collection of the data. After, establishing rapport, the researcher administered the Professor N. K. Chadda and UshaGanesan Social Intelligence Scale (1986) to the respondents. Researcher assured the respondents, that there is no right or wrong responses and requested the respondents to answer as honestly as possible. The respondents were also assured about the confidentiality of their answers.

PHASE: IV- PILOT STUDY

To ascertain the validity of the standard questionnaire used for the present study, a “Pilot study” was conducted on 10% of total sample, when no flaw was encountered in the study the same technique was maintained for the main study. The reliability was found to be 0.78.

PHASE: IV- STATISTICAL ANALYSIS.

The data obtained from the respondents through the questionnaire was compiled, systematically tabulated and statistically analyzed.

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Levels of dimension</th>
<th>Science</th>
<th>Commerce</th>
<th>Arts</th>
<th>Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very low</td>
<td>8 (16%)</td>
<td>19 (38%)</td>
<td>6 (12%)</td>
<td>33 (22%)</td>
</tr>
<tr>
<td>2</td>
<td>Low</td>
<td>9 (18%)</td>
<td>9 (18%)</td>
<td>10 (20%)</td>
<td>28 (19%)</td>
</tr>
<tr>
<td>3</td>
<td>Average</td>
<td>14 (28%)</td>
<td>9 (18%)</td>
<td>10 (20%)</td>
<td>33 (22%)</td>
</tr>
<tr>
<td>4</td>
<td>High</td>
<td>14 (28%)</td>
<td>7 (14%)</td>
<td>19 (38%)</td>
<td>40 (27%)</td>
</tr>
<tr>
<td>5</td>
<td>Very High</td>
<td>5 (10%)</td>
<td>6 (12%)</td>
<td>5 (10%)</td>
<td>16 (10%)</td>
</tr>
<tr>
<td></td>
<td><strong>Column Totals</strong></td>
<td><strong>50(100%)</strong></td>
<td><strong>50(100%)</strong></td>
<td><strong>50(100%)</strong></td>
<td><strong>150(100%)</strong></td>
</tr>
</tbody>
</table>

The chi-square statistic is 15.8282. The p-value is .044905. The result is significant at p< .05.

Table 1 depicts the assessment of patience dimension among hostel respondents. Among science stream respondents equal percentage of the respondents (28% each) which is also a majority had either high level or average level of patience. It is surprising to note from the table that majority of the commerce respondents (38%) had very low levels of patience. When patience dimension was assessed among the arts stream respondents (38%) majority scored high level. When the above data was subjected to statistical chi square analysis a significant association was found between academic streams and patience at 5% level.
Validation

Hence the hypothesis stating that there is no association between social intelligence of patience and academic streams was rejected.

![Graph showing the levels of cooperativeness among hostel respondents]

**Table 2**

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Levels of dimension</th>
<th>Science</th>
<th>Commerce</th>
<th>Arts</th>
<th>Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very low</td>
<td>7 (14%)</td>
<td>14 (28%)</td>
<td>15 (30%)</td>
<td>36 (24%)</td>
</tr>
<tr>
<td>2</td>
<td>Low</td>
<td>21 (42%)</td>
<td>17 (34%)</td>
<td>13 (26%)</td>
<td>51 (%)</td>
</tr>
<tr>
<td>3</td>
<td>Average</td>
<td>5 (10%)</td>
<td>9 (18%)</td>
<td>10 (20%)</td>
<td>24 (%)</td>
</tr>
<tr>
<td>4</td>
<td>High</td>
<td>5 (10%)</td>
<td>6 (12%)</td>
<td>6 (12%)</td>
<td>17 (%)</td>
</tr>
<tr>
<td>5</td>
<td>Very High</td>
<td>12 (24%)</td>
<td>4 (8%)</td>
<td>6 (12%)</td>
<td>22 (%)</td>
</tr>
<tr>
<td></td>
<td><strong>Column Totals</strong></td>
<td>50(100%)</td>
<td>50(100%)</td>
<td>50(100%)</td>
<td><strong>150(100%)</strong></td>
</tr>
</tbody>
</table>

The chi-square statistic is 11.6439. The p-value is .167811. The result is not significant at p < .05.

Table 2 interprets the assessment of cooperativeness dimension among hostel respondents. Majority of the science (42%) and commerce (34%) stream respondents had low level of cooperativeness. While cooperativeness dimension was assessed among the arts stream respondents (30%) majority scored very low level. When the above data was subjected to statistical analysis chi square shows a no significant association was found between academic streams and cooperativeness at 5% level.

Validation

Hence the hypothesis stating that there is no association between social intelligence of cooperativeness and academic streams was accepted.
Table:3

Assessment of Confidence dimension among hostel respondents

<table>
<thead>
<tr>
<th>SI.NO</th>
<th>Levels of dimension</th>
<th>Science</th>
<th>Commerce</th>
<th>Arts</th>
<th>Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very low</td>
<td>9 (18%)</td>
<td>10 (20%)</td>
<td>13 (26%)</td>
<td>32 (24%)</td>
</tr>
<tr>
<td>2</td>
<td>Low</td>
<td>13 (26%)</td>
<td>19 (38%)</td>
<td>13 (26%)</td>
<td>45 (30%)</td>
</tr>
<tr>
<td>3</td>
<td>Average</td>
<td>9 (18%)</td>
<td>5 (10%)</td>
<td>6 (12%)</td>
<td>20 (13%)</td>
</tr>
<tr>
<td>4</td>
<td>High</td>
<td>14 (28%)</td>
<td>11 (22%)</td>
<td>10 (20%)</td>
<td>35 (23%)</td>
</tr>
<tr>
<td>5</td>
<td>Very High</td>
<td>5 (10%)</td>
<td>5 (10%)</td>
<td>8 (16%)</td>
<td>18 (12%)</td>
</tr>
<tr>
<td></td>
<td><strong>Column Totals</strong></td>
<td><strong>50(100%)</strong></td>
<td><strong>50(100%)</strong></td>
<td><strong>50(100%)</strong></td>
<td><strong>150(100%)</strong></td>
</tr>
</tbody>
</table>

The chi-square statistic is 5.4554. The p-value is .707981. The result is not significant at p< .05.

Table 3 shows the assessment of confidence dimension among hostel respondents. Majority of the science stream respondents (28%) had high level of confidence. Among arts stream respondents equal percentage of the respondents (26% each) which is also a majority had either low level or very low level of patience. When confidence dimension was assessed among the commerce stream respondents (38%) majority scored low level. When the above data was subjected to statistical analysis, no significant association was found between academic streams and confidence at 5% level.
Validation

Hence the hypothesis stating that there is no association between social intelligence of confidence and academic streams was accepted.

Table 4 denotes the assessment of sensitivity dimension among hostel respondents. Majority of the science (28%) and commerce (40%) stream respondents had average level of sensitivity. When sensitivity dimension was assessed among the commerce stream respondents (36%) majority scored low level. When the above data was subjected to statistical analysis chi square shows a no significant association between academic streams and sensitivity at 5% level.
Validation

Hence the hypothesis stating that there is no association between social intelligence of sensitivity and academic streams was accepted.

<table>
<thead>
<tr>
<th>SL NO</th>
<th>Levels of dimension</th>
<th>Science</th>
<th>Commerce</th>
<th>Arts</th>
<th>Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low</td>
<td>38 (76%)</td>
<td>37 (74%)</td>
<td>29 (58%)</td>
<td>104 (69%)</td>
</tr>
<tr>
<td>2</td>
<td>Average</td>
<td>7 (14%)</td>
<td>7 (14%)</td>
<td>16 (32%)</td>
<td>30 (20%)</td>
</tr>
<tr>
<td>3</td>
<td>High</td>
<td>5 (10%)</td>
<td>6 (12%)</td>
<td>5 (10%)</td>
<td>16 (11%)</td>
</tr>
<tr>
<td></td>
<td><strong>Column Totals</strong></td>
<td>50 (100%)</td>
<td>50 (100%)</td>
<td>50 (100%)</td>
<td>150 (100%)</td>
</tr>
</tbody>
</table>

The chi-square statistic is 6.9288. The p-value is .139696. The result is not significant at p < .05.

Table 5 interprets the assessment of recognition of social environment dimension among hostel respondents. It can be observed from the table that majority of hostel respondents belonged to all the academic streams had low level of recognition of social environment. When the above data was subjected to statistical analysis chi square shows no significant association was found between academic streams and recognition of social environment at 5% level.

Validation

Hence the hypothesis stating that there is no association between social intelligence of recognition of social environment and academic streams was accepted.
Table 6 gives the assessment of tactfulness dimension among hostel respondents. It can be observed from the table that majority of hostel respondents belonged to all the academic streams had low level of tactfulness. When the above data was subjected to statistical analysis chi square shows no significant association was found between academic streams and tactfulness at 5% level.

Validation

Hence the hypothesis stating that there is no association between social intelligence of tactfulness and academic streams was accepted.
Table 7 clearly denotes the assessment of sense of humor dimension among hostel respondents. It can be observed from the table that majority of hostel respondents belonged to all the academic streams had low level of sense of humor. When the above data was subjected to statistical analysis chi square shows no significant association was found between academic streams and sense of humor at 5% level.

**Table 7**

<table>
<thead>
<tr>
<th>SI.NO</th>
<th>Levels of dimension</th>
<th>Science</th>
<th>Commerce</th>
<th>Arts</th>
<th>Row Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low</td>
<td>44 (88%)</td>
<td>40 (80%)</td>
<td>42 (84%)</td>
<td>126 (84%)</td>
</tr>
<tr>
<td>2</td>
<td>Average</td>
<td>6 (12%)</td>
<td>10 (20%)</td>
<td>8 (16%)</td>
<td>24 (16%)</td>
</tr>
<tr>
<td></td>
<td><strong>Column Totals</strong></td>
<td><strong>50 (100%)</strong></td>
<td><strong>50 (100%)</strong></td>
<td><strong>50 (100%)</strong></td>
<td><strong>150 (100%)</strong></td>
</tr>
</tbody>
</table>

The chi-square statistic is 1.1905. The p-value is .551431. The result is not significant at p < .05.

Validation

Hence the hypothesis stating that there is no association between social intelligence sense of humor and academic streams was accepted.
Table 8 denotes the assessment of memory dimension among hostel respondents. Majority of the stream respondents (56%) had average level of memory. When memory dimension was assessed among the commerce (56%) and arts (54%) stream respondents’ majority scored low level. When the above data was subjected to statistical analysis chi square shows a no significant association between academic streams and memory at 5% level.

Validation

Hence the hypothesis stating that there is no association between social intelligence of memory and academic streams was accepted.
Table 9 shows the assessment of overall social intelligence among hostel respondents. Majority of the science stream respondents (80%) had average level social intelligence. Where, commerce (36%) and arts (32%) stream respondents had low level of social intelligence. When the above data was subjected to statistical analysis chi square shows a no significant association between academic streams and overall social intelligence at 5% level.

Validation

Hence the hypothesis stating that there is no association between overall social intelligence and academic streams was accepted.
Table: 10

Comparison of Social Intelligence among female Hostel respondents belonging to different streams

<table>
<thead>
<tr>
<th>Dimensions of Social Intelligence</th>
<th>Number of samples</th>
<th>Stream (Mean ± SD)</th>
<th>Significance of F value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Science</td>
<td>Commerce</td>
</tr>
<tr>
<td>Patience</td>
<td>50</td>
<td>18.64 ± 2.71</td>
<td>17.64 ± 2.44</td>
</tr>
<tr>
<td>Cooperativeness</td>
<td>50</td>
<td>24.84 ± 3.56</td>
<td>23.68 ± 3.24</td>
</tr>
<tr>
<td>Confidence</td>
<td>50</td>
<td>19.10 ± 3.11</td>
<td>18.48 ± 1.93</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>50</td>
<td>20.40 ± 2.85</td>
<td>19.22 ± 2.79</td>
</tr>
<tr>
<td>Recognition of Social Environment</td>
<td>50</td>
<td>1.34 ± 0.65</td>
<td>1.14 ± 0.34</td>
</tr>
<tr>
<td>Tactfulness</td>
<td>50</td>
<td>3.58 ± 1.22</td>
<td>3.58 ± 1.16</td>
</tr>
<tr>
<td>Sense of Humour</td>
<td>50</td>
<td>3.50 ± 2.12</td>
<td>2.82 ± 1.00</td>
</tr>
<tr>
<td>Memory</td>
<td>50</td>
<td>8.14 ± 2.45</td>
<td>7.68 ± 1.99</td>
</tr>
<tr>
<td>Overall</td>
<td>50</td>
<td>99.54 ± 9.95</td>
<td>94.24 ± 8.24</td>
</tr>
</tbody>
</table>

** Significant at 1% level  * Significant at 5% level  NS Not significant

Analysis of Table 10, reveals that the mean scores of the arts respondents was fond to be higher for social intelligence dimensions of patience, confidence, recognition of social environment and tactfulness compared to the respondents belonging to other streams. The next highest mean scores for these dimensions were observed for the science stream respondents.

When the mean scores for the social intelligence dimensions of cooperativeness, sensitivity, sense of humor and memory dimensions were compared, the analysis shows science stream respondents had scored higher mean scores compared to other academic stream respondents. The next highest mean scores for these
dimensions were observed among the arts stream respondents, except for memory dimension for which commerce respondents scored higher than the arts respondents.

When the above data was subjected to statistical analysis, a strongly significant difference was observed for patience dimension at 1% level of significance. While a significance difference at 5% was observed for the dimension recognition of social environment.

Further, non-significant difference was observed for all the other dimensions of social intelligence. When all these dimensions were considered and overall social intelligence was calculated, the highest mean score was observed for the science stream students. The next highest mean score for overall social intelligence was observed for the arts stream respondents. The statistical analysis also shows a significant difference at 5% level for overall social intelligence.

- Srivastava et al. (2016) study on “The impact of social intelligence on peer relationships among adolescents” supports the present study. Their study shows Science students had scored more SI than the art students.

Validation:

Hence, the hypothesis stating that there is no significant differences between science, commerce and arts stream hostel residing respondents for the social intelligence dimensions is rejected for patience, recognition of social environment and overall social intelligence, while it is accepted for all the other remaining social intelligence dimensions.

Conclusion:

The present study had made an attempt to study the social intelligence among female hostel residing college students studying at different academic streams viz science, arts and commerce in Bangalore city. Majority of the hostel science stream respondents had average level social intelligence while commerce and arts stream hostel residing respondents had low level of social intelligence. The association between academic streams and sub dimensions of social intelligence revealed a significant association for patience among hostel residing respondents.
Reference:


- Chadha and M.S. Usha Ganesan. (1986). P.G. Department of Psychology, University of Delhi.


• Rai, R., & Singh, M. (2014) “A Study of Social Intelligence among College Students in Relation to their Subject Stream in Bijnor District Bijnor District”.


- Suresh prabu (2015) “Study on social intelligence among arts and science college students” 1.795, SJIF, VOL-II, ISSUE-VII

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- [https://www.researchgate.net/publication/312596614](https://www.researchgate.net/publication/312596614)
- [www.researchjournal.co.in](http://www.researchjournal.co.in)
- [http://www.journalijar.com](http://www.journalijar.com)
- [www.srjis.com](http://www.srjis.com)