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SOCIAL INTELLIGENCE AMONG FEMALE HOSTEL AND DAY SCHOLAR COLLEGE STUDENTS: A COMPARATIVE STUDY

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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 and day scholar college students belonged to different academic streams. A total sample of 300 college students aged between 17-25 years belonged to three academic streams, with 50 hostels residing and 50-day scholar 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, student's 't' test and chi square test. The study revealed that day scholar college students had higher mean social intelligence scores compared to the hostel residing students and showing statistically significant differences between these groups.

Keywords: Social Intelligence, Social Skills, Patience, Memory, Mean, College Students.

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 & Lampaman Petraits, 1989). It is 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 sensitivities 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









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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 our personal well-being (Dr Jennifer Lau 2016). 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. Lynas elucidate that 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 good and healthy interaction with friends, neighborhoods and other people in the society enhances 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. Offering opportunities to do this could have beneficial impacts on adulthood.

Vicky Wallis, 2016 states that young people often struggle to make the transition between education and work and one of the main reasons is their ability to deal with the dramatic difference between these two environments. 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 explores 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 envisaged to assess the social intelligence among college students. The literature on youth shows wide areas of differences within that population. Among these areas with relevance to social intelligence, the college students residing at their home and those attending the college by taking a stay at hostel shows a difference. Hence for the present study the researcher has taken the sample from both hostel residing and day scholar students. Further **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.

Therefore, the present study has made an attempt to find out "Social intelligence among female hostel residing and day scholar college students: A comparative study".

Objectives of the Present Study

The broad objective of the research study was to compare Social intelligence among female hostel residing and day scholar respondents belonged to different academic streams.

- 1. To assess social intelligence among both hostel residing and day scholar respondents.
- 2. To compare social intelligence among hostel residing respondents belong to different academic streams.
- 3. To compare social intelligence among day scholar respondents, belong to different academic streams.

Hypothesis

- 1. There is no significant difference in the social intelligence of hostel and day scholar respondents.
- 2. There is no significant difference in the social intelligence among hostel respondents belonging to different streams of study.
- 3. There is no significant difference in the social intelligence among day scholar respondents belonging to different streams of study.

Research design

The entire study was divided into 4 phases:

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.

It measures social intelligence in eight areas- patience, cooperativeness, confidence level, sensitivity, recognition of social environment, tactfulness, sense of humour, and memory.









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Number of items present under each dimension in the scale.

	Dimension	Number of items
a)	Patience	8
b)	Co-cooperativeness	11
c)	Confidence	8
d)	Sensitivity	9
e)	Recognition of Social Environment	3
f)	Tactfulness	7
g)	Sense of Humour	8
h)	Memory	12
	Total	66

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 selected for identification of sample. It was decided to take the sample studying in science, arts and commerce academic streams for the identified colleges. 100 students in the age group of 17-25 years with 50 hostel residing and 50 day scholar students from each academic stream were identified for the study. Thus, total sample of 300 college students were selected for the study. The sample has been selected through random sampling technique.

Different streams	Hostelite	Non hostelite
Science	50	50
Arts	50	50
Commerce	50	50
Total	150	150

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 assures about the confidentiality of their answers.

Phase: IV- Statistical analysis.

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

Table: 1

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

Dimensions of Social Intelligence	Number of samples	Stream (Mean ± SD)			Significance of F value
		Science	Commerce	Arts	
Patience	50	18.64 ± 2.71	17.64 ± 2.44	19.16 ± 2.69	4.3354**
Cooperativeness	50	24.84 ± 3.56	23.68 ± 3.24	23.48 ± 4.09	2.0219 ^{NS}
Confidence	50	19.10 ± 3.11	18.48 ± 1.93	19.30 ± 4.21	0.8738 ^{NS}
Sensitivity	50	20.40 ± 2.85	19.22 ± 2.79	20.14 ± 2.98	2.3185 ^{NS}
Recognition of Social Environment	50	1.34 ± 0.65	1.14 ± 0.34	1.40 ± 0.56	3.1503*
Tactfulness	50	3.58 ± 1.22	3.58 ± 1.16	3.76 ± 1.23	0.3683 ^{NS}
Sense of Humour	50	3.50 ± 2.12	2.82 ± 1.00	3.40 ± 2.12	2.2730 ^{NS}









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Memory	50	8.14 ± 2.45	7.68 ± 1.99	7.24 ± 2.74	1.7309 ^{NS}
Overall	50	99.54 ± 9.95	94.24 ± 8.24	97.88 ± 11.47	3.6904*

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

Analysis of table 1, 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 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 scored higher mean scores. The next highest mean scores was 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 dimension of social intelligence. When all these dimensions were considered and overall social intelligence was calculated. The highest mean scores were observed for the science stream students. The next highest mean scores were 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) a descriptive study on "The impact of social intelligence on peer relationships among adolescents" supports the present study. Their study shows Science students have more SI than art students.

Validation

Hence, the hypothesis stating that there is no significant differences between science, commerce and arts stream 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.

Table: 2 Comparison of mean score of Social Intelligence among female Day scholar respondents belonging to different streams

Dimensions of Social Intelligence	Number of samples	Stream (Mean ± SD)	Significance of F value		
		Science	Commerce	Arts	
Patience	50	20.00 ± 2.26	18.76 ± 2.29	19.52 ± 2.31	3.7142*
Cooperativeness	50	25.30 ± 2.93	24.16 ± 2.50	24.10 ± 4.04	2.1938 ^{NS}
Confidence	50	18.50 ±2.17	18.50 ± 2.17	19.30 ± 2.15	2.2609 ^{NS}
Sensitivity	50	19.92 ± 2.57	20.12 ± 2.75	19.58 ± 2.17	0.5883 ^{NS}
Recognition of Social Environment	50	1.40 ± 0.63	1.20 ± 0.48	1.54 ± 0.78	3.4383*
Tactfulness	50	4.26 ± 1.31	3.86 ± 1.38	3.86 ± 1.33	1.4645 ^{NS}
Sense of Humour	50	4.72 ± 2.04	3.04 ± 1.66	4.18 ± 1.76	10.9141**
Memory	50	7.74 ± 2.59	9.10 ± 2.33	9.14 ± 2.05	5.7914**
Overall	50	101.84 ± 7.95	99.46 ± 7.78	101.22 ± 7.27	1.2926 ^{NS}









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Table 2 depicts, the mean scores of the social intelligence among day scholars belonging to different academic streams. The mean scores of the science stream respondents was found to be higher for social intelligence dimensions of patience, cooperativeness, tactfulness and sense of humor compared to the respondents belonging to other streams. The next highest mean scores for patience and sense of humor among arts stream students while cooperativeness, tactfulness and memory were observed among the commerce stream respondents.

When the mean scores for the dimensions of confidence, recognition of social environment and memory were analysed, arts stream respondents obtained higher mean scores compared to the other streams, except for sensitivity dimension for which commerce respondents scored higher than other streams.

When the above data was subjected to the statistical analysis, statistically significant difference was observed for the sense of humor and memory at 1% level of significance. While significance difference at 5% was observed for the dimensions of patience and recognition of social environment.

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 scores were observed for the science stream respondents. The next mean scores were observed for the arts stream respondents. However, the statistical analysis shows a non-significant difference for overall social intelligence.

Validation

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

Table: 3

Dimensions of Social Intelligence	Number of samples	Group (Mean ± SD)	Significance of t value	
5	•	Hostellites	Non Hostellites	
Patience	150	18.48 ± 2.68	19.42 ± 2.33	3.2604**
Cooperativeness	150	24.00 ± 3.67	24.52 ± 3.25	1.2972 ^{NS}
Confidence	150	18.96 ± 3.23	19.00 ± 2.12	0.1478 ^{NS}
Sensitivity	150	19.92 ± 2.90	19.87 ± 2.50	0.1488 ^{NS}
Recognition of Social Environment	150	1.29 ± 0.54	1.38 ± 0.65	1.2329 ^{NS}
Tactfulness	150	3.64 ± 1.20	3.99 ± 1.35	2.3873**
Sense of Humour	150	3.24 ± 1.73	3.98 ± 1.95	3.4668**
Memory	150	9.68 ± 2.42	8.66 ± 2.41	3.4784**
Overall	150	97.22 ± 10.15	100.84 ± 7.69	3.4794**

** Significant at 1% level NS Not significant

Table 3 interprets the mean scores of social intelligence between hostel and day scholar respondents. The mean scores of day scholar respondents was to be found to be higher for social intelligence dimensions of patience, cooperativeness, confidence, recognition of social environment, tactfulness and sense of humor compared to the hostel respondents. While the dimensions of sensitivity and memory was found to be higher among hostel respondents.

When the above data was subjected to statistical analysis, it is evident from the table that a strongly significant difference was observed for patience (t value is 3.2604), tactfulness (t value is 2.3873), sense of humor (t value is 3.4668) and memory (t value is









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3.4784) dimensions of social intelligence at 1% level of significance. Whereas no significant difference was observed for the cooperativeness, confidence, sensitivity and recognition of social environment dimensions of social intelligence among hostel and day scholar respondents.

Thus, the table clearly indicates that the day scholar respondents had higher social intelligence than day scholar respondents.

Validation

Hence, the hypothesis stating that there is no significant difference between hostel and day scholar respondents for the social intelligence dimensions of patience, tactfulness, sense of humor, memory and overall social intelligence were rejected, while it is accepted for cooperativeness, confidence, sensitivity and recognition of social environment.

Conclusion

The present study had made an attempt to study the social intelligence among female hostel residing and day's scholar college students studying at different academic streams viz science, arts and commerce in Bangalore city. The study revealed that day scholar college students had higher mean social intelligence scores compared to the hostel residing students and showing statistical significant differences between these groups.

References

- Asha Sharma (2012) "A study to the relationship between social intelligence, altruism and spiritual intelligence" Imperial Journal of Interdisciplinary Research (IJIR) Vol-2, Issue-12, 2016 ISSN: 2454-1362.
- AsmaNazir (2015) "Social Intelligence and Academic Achievement of College Students" IOSR Journal of Humanities and Social Science (IOSR-JHSS) Volume 20, Issue 2, Ver. II (Feb. 2015), PP 74-76
- Bhatia S, Daga M (2017), "A Study of Social Intelligence of Liberal Studies and Engineering Students", International Journal of Indian Psychology, Vol. 4 (3), DIP:18.01.222/20170403.
- Chadha and M. S. UshaGanesan. (1986). P.G. Department of Psychology, University of Delhi.
- Crown, Anne. K (2013) "An empirical analysis of three intelligences". Canadian Journal of Behavioural Science, Vol 45(2), pp. 105-114.
- Dr. D.Vinodhkumar, and R. Pankajam. (2017). "Social intelligence and achievement in science among higher secondary school students." International Journal of Research Granthaalayah, 5(1) SE, 9-13.
- Gnanadevan, R. (2007). "Social intelligence of higher secondary students in relation to their social- economic status". Journal of Community Guidance and Research, 24(3) 340-346.
- Goel, M., & Aggarwal, P. (2012). "A comparative study of social intelligence of single child and child with siblings". International Journal of Physical and Social Science, 2(6), 262-288.
- Goleman, D (2006) Social Intelligence: The new science of Human Relationships. New York: Bantam Books.
- Goleman, D., &Boyatzis, R. (2008). Social intelligence and the biology of leadership. Harvard Business Review, 86(9), 74-81.
- Guilford, J.P (1967) The nature of Human Intelligence. New York: McGraw-Hill.
- Guilford, J.P. (1958). Three Faces of Intellect. American Psychologist, 14, 469-479.
- Hooda, D, Sharma, N.R and Yadava. A (2009) Social Intelligence as a predictor of positive psychological health. Journal of the Indian Academy of Applied Psychology. Vol-35, No.1 pp. 143-150.
- Kaur, Manleen and Jassal, Rippen Gill (2014). "Impact of social intelligence on socio- emotional competence of the adolescents". Adv. Res. J. Soc. Sci., 5 (2): 184-187.
- Khan, Z., Khan, N. A., & Haider, Z. (2011). "A Study on Social Intelligence of the students of physical education". International Journal of Sports Sciences and Physical education. (IJSSPE) Vol-II, Issue-I.
- Kothari, C.R (1985). Research methodology-Method and techniques, Wiley Eastern Limited, New Delhi.
- ManjariSrivastavaet al. 2016, "Impact of Social Intelligence on Peer Relationships Among Adolescents: A Gender Analysis". Int J Recent Sci Res. 7(8), pp. 12791-12794.
- Meijs, N, Antonius. H. N. Cillessen, Ron. H. J. Scholte, Segers. E, Spijkerman. R (2008) "Social Intelligence and Academic Achievement as predictors of adolescent popularity"; Journal of Youth and Adolescence, Department of Psychology, University of Connecticut, Storrs/USA.
- Mukeshkumarpanth, K. Agrawal2 and Artichaurasia(2015) "A exploratory study to compare of the Social intelligence among gender and stream". Issn 2320-5407 international journal of advanced research (2015), volume 3, issue 7, 641-652.
- ParminderKaur (2015) "Study of social intelligence and adjustment among pupil teachers in relation to their gender and locality"
 International Journal of Applied Research 2015; 1(7): 90-93
- Patel H (2017), A Study of Social Intelligence among Commerce and Science College Students, International Journal of Indian Psychology, Vol. 4 (3), DIP:18.01.220/20170403









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Peer Reviewed and Refereed Journal: VOLUME: 10, ISSUE: 1(4), January: 2021
Online Copy Available: www.ijmer.in

- Rai, R., & Singh, M. (2014) "A Study of Social Intelligence among College Students in Relation to their Subject Stream in Bijnor District Bijnor District".
- Reena, Bimladhanda and Pinkininaniya (2017) "Dimensions of Social Intelligence of Adolescents" IOSR Journal Of Humanities And Social Science (IOSR-JHSS) Volume 22, Issue 3, Ver. III (March. 2017) PP 56-57 e-ISSN: 2279-0837, p-ISSN: 2279-0845.
- Sangeeta K. Rathod. "A Study of Social Intelligence and Personality among Adolescence." IOSR Journal of Nursing and Health Science (IOSR-JNHS), vol. 6, no. 5, 2017, pp. 36–39.
- Sembiyan, R, Visvanathan, G and Dr P. C. Naga Subramani. (2011). "A Study on the attitude towards regionalism of college students in relation to Social Intelligence". Indian Streams Research Journal (ISRJ) Vol-I, Issue-IX.
- Sembiyan, R., &Visvanathan, G. (2012). A study on social intelligence of college students. International Journal of Current Research, 4(1), 231-232.
- Sembiyan, R., &Visvanathan, G. (2012). A study on social intelligence of college students. International Journal of Current Research, 4(1), 231-232.
- Sreeja.P, and Mrs. Nalinilatha.M. (2017). "A study on relationship between social intelligence and academic achievement of higher secondary students." International Journal of Research Granthaalayah, 5(6), 476-488.
- SumanlataSaxena and Rajat Kumar Jain "The social intelligence of male and female undergraduate students of science and Arts subject streams studying in various degree colleges of Bhilai city. IOSR Journal of Research & Method in Education (IOSR-JRME) Volume 1, Issue 1 (Jan. – Feb. 2013), PP 01-04.
- Suresh prabu (2015) "Study on social intelligence among arts and science college students" 1.795, SJIF, VOL-II, ISSUE-VII
- Thorndike, E.L (1920) Intelligence and its use. Harper's Magazine, 140, pp. 227-235.
- Tiakala (2016) "The social intelligence of the higher secondary school students in Nagaland" Researchpaedia Vol. 3 No. 1, January, 2016
- Tyler. E. L (1969) The Psychology of Human Differences (Third Edition) University of Oregon, Vakils, Feffer and Simons Private Ltd.
- Vardhini, S. V. (2013). Social Intelligence of University Students. Conflux Journal of Education, vol-1(3).

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- https://doi.org/10.5281/zenodo.545958.
- www.ijless.com
- https://doi.org/10.5281/zenodo.321568.
- www.allresearchjournal.com
- http://www.ijip.in
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- www.srjis.com