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# Demographic Factors in Social Intelligence of Secondary School Teachers

Paul, T. M[1], Arjunan, N. K[2]*

**ABSTRACT**

The present normative survey was aimed to study the differential effect of selected demographic factors on the social intelligence of secondary school teachers. The Social Intelligence Test for Teachers, developed by the investigators, was administered along with a personal data sheet on a sample of 236 teachers, selected on a stratified random basis, from Ernakulam district of Kerala. The data, thus collected, were subjected to statistical analysis(t-test and One-way ANOVA) by keeping the objectives and hypotheses in mind. The study revealed a differential effect of gender on social intelligence, wherein the male teachers excel female teachers. Educational qualification, however, was found to have no significant effect in discriminating the secondary school teachers on the basis of their social intelligence. The trained graduate and trained postgraduate teachers are alike with regard to their social intelligence. Demographic factors like the type of school management and length of service experience were found to be decisive factors in the social intelligence of secondary school teachers.

***Keywords:*** *Social Intelligence, Secondary School Teachers, Demographic Factors.*

**P**ersonality of a teacher plays an important role within the process of education and training. It is a base for the positive influence on pupils and students (Hrbackova*et al.*, 2011). This positive influence is a reflection of the authority of the teacher determined by their expertise, pedagogical preconditions, social acceptance, character and moral qualities. Teachers must possess the vital skills, personality characteristics and behaviours that students perceive to impact their motivation to learn, since it is a teacher's job to connect with each student to foster the passion and excitement to learn (Littkey*et al.*, 2004). Social intelligence as a personality trait as well as a performance characteristic may be regarded as an important social competence of a teaching profession and a significant predictor of successfulness of a teacher in their profession.

[1] Research Scholar, Research & Development Centre, Bharathiar University, Coimbatore, India
[2] Professor, TEC, JMC, University of Calicut, Aranattukara.P.O., Thrissur, India
*Responding Author

Social intelligence is the set of abilities and skills that we use to understand and navigate social situations and maintain our relationships. It involves one's ability to understand others, act and behave intelligently and wisely in relationships with others, and use it in adaptive social interactions (Safarinia*et al*., 2011). Researches have shown that Social Intelligence has stunning implications in the life of an individual. In many fields today, emphasis placed on interpersonal relationships in various work environments is itself a reflection of the significance of Social Intelligence. Experimental evidence of the studies conducted by Hooda*et al.,* (2009) suggested that Social Intelligence bears a significant positive relationship with one's positive psychological health. Gilbert (1995) and Zaccaro*et al*., (1991) have stressed the importance of Social Intelligence in enabling leaders to be effective.

Over the past years, researches on Social Intelligence suggest how it is linked with everything from workplace success and student achievement to general well-being and health (Bar-On, 2005; Druskat*et al*., 2006). Investigations have shown that persons having high level of Social Intelligence are able to meet the demands of everyday functioning and are equipped to handle participation and responsibility for their own welfare and of others. According to Cantor & Kihlstrom (1987), Social Intelligence is specifically geared to solving the problems of social life, and in particular managing the life tasks, current concerns or personal projects which the person selects for him or herself, or which other people impose on him or her from outside. Vyrost & Kyselova (2006) investigated interconnections between social intelligence, wisdom, values and interpersonal personality traits. Among the various factors influencing the classroom behaviour of teachers, their social intelligence is of utmost importance. The differential effect of socio-cultural and demographic factors on teachers' social intelligence is an unexplored area of investigation in Kerala context. The present study is a modest attempt to explore the decisive role likely to be played by selected demographic factors on social intelligence of secondary school teachers of Kerala.

***Objectives***

The study has the following objectives in view:

1. To find out the proportion of secondary school teachers in various levels of social intelligence.
2. To find out significant difference, if any, between the male and female teachers with regard to their social intelligence.
3. To find out the differential effect of type of school management on the social intelligence of secondary school teachers.
4. To find out significant difference, if any, between trained undergraduate and trained postgraduate teachers with regard to their social intelligence.
5. To find out the differential effect of service experience on the social intelligence of secondary school teachers.

***Hypotheses***

The following specific hypotheses were formulated for the purpose of the study:

1. The secondary school teachers possess different levels of social intelligence.
2. There is significant difference in the mean scores of social intelligence of secondary school teachers with respect to their gender.
3. There is significant difference in the mean scores of social intelligence of secondary school teachers with respect to the type of school management.
4. There is significant difference in the mean scores of social intelligence of secondary school teachers with respect to their academic qualification.
5. There is significant difference in the mean scores of social intelligence of secondary school teachers with respect to their service experience.

## METHODOLOGY

Normative survey method was used in the present study. The study made use of a sample of 236secondary school teachers (male = 84, and female = 152), selected on the basis of *'stratified random sampling technique'* from Ernakulam district, Kerala. The average age of the subjects were estimated to be 42.47.

***Tools used***

*Social Intelligence Test for Teachers (SITT):* The social intelligence of the subjects was measured by using the Social Intelligence Test for Teachers developed by the investigators. It is a standardized tool that measures the ability of school teachers to *understand and manage human beings and to act wisely in social relations.* The SITT consists of 50 objective type items covering five domains of social intelligence viz., *social awareness, social understanding, social memory, pro-social attitude,* and *social skills.* The first 41 items of the test are objective type multiple choice questions having four response alternatives, while the remaining 9 items are recall-type questions where the respondent is expected to write down suitable word(s). The test is found to have a concurrent validity of 0.74 with another established test and test-retest reliability of 0.85.

***Procedure***

The tool was administered on the sample in small group situation under standardized conditions, their responses were collected in the response sheets, and the total score on the SITTwas found out. A personal data sheet was also attached with the SITT, so as to collect the required demographic information. The data thus obtained were subjected to appropriate statistical techniques and interpreted accordingly. The descriptive statistical indices the total sample and relevant sub-samples were computed and the group comparisons were done by applying t-test or ANOVA with the help of SPSS (Windows 16.0).

## RESULT AND DISCUSSION

The present study is aimed to understand the differential effect of selected demographic factors on social intelligence of secondary school teachers. The data collected by administering the SITT is analyzed by keeping the specific objectives and hypotheses in mind. The important statistical indices such as Mean (M), Median (Mdn), Standard Deviation (σ), Skewness (Sk), Kurtosis, Standard Error of Mean ($SE_M$) and population values of the Mean ($M_{POP}$), calculated from the SITT scores of the total group and the male and female teachers are given in Table 1.

***Table 1: Important Statistical Constants for the Distribution of Social Intelligence among Secondary School Teachers***

| Sample | N | Mean | Median | Mode | SD | $SE_M$ | Skewness | Kurtosis | $M_{POP}$ | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | .05 | .01 |
| Total | 236 | 80.41 | 79.92 | 71 | 20.92 | 1.36 | -0.032 | -0.683 | 77.74<br>83.08 | 76.90<br>83.92 |
| Male | 84 | 84.21 | 86.52 | 92 | 24.08 | 2.63 | -0.259 | -1.069 | 79.06<br>89.36 | 77.42<br>91.00 |
| Female | 152 | 77.81 | 78.68 | 71 | 17.83 | 1.45 | -0.189 | 0.391 | 74.97<br>80.65 | 74.07<br>81.55 |

As far as the social intelligence is concerned, the total group of secondary school teachers is a heterogeneous one. The mean of the SITT scores of the total group under study is 80.41, with a standard deviation of 20.92. The median estimated for the distribution is 79.92, which is very close to the mean value producing a normal distribution (Sk = -0.032). The estimated mean population value ($M_{POP}$) lies between 77.74 and 83.08 at 0.05 level; and between 76.90 and 83.92 at 0.01 level ($SE_M$ for the total sample is 1.36). A closer observation of the result presented in Table 1 clearly indicates that the male and female sub-samples show differences in distribution. Based on the norms of the SITT, the total group was further classified into different levels of social intelligence, viz., *High SI group*, *Average SI group,* and *Low SI group.* The proportion of these groups in the total sample is given in Fig. 1.

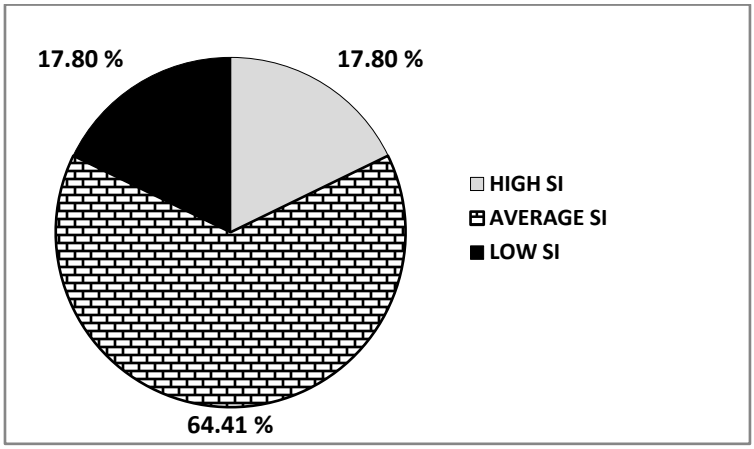


***Fig. 1: Proportion of Different Levels of Social Intelligence among Secondary School Teachers (Total Sample)***

Fig. 1reveals that majority (64.41%) of the secondary school teachers possess average social intelligence. While 17.80% of the secondary school teachers possess high social intelligence, an equal proportion falls in the low social intelligence group.

In order to find out the significant difference, if any, between male and female teachers with regard to their social intelligence, the mean SITT-scores of the gender groups were compared by applying the two-tailed test of significance for difference between means. The details of the comparison are presented in Table 2.

***Table 2: Comparison of the SITT Scores of the Sub-samples based on Gender***

| Groups | Sub-samples | Statistical Indices | | | t-value |
|---|---|---|---|---|---|
| | | N | M | SD | |
| **Gender** | Male | 84 | 84.15 | 24.13 | 2.23* |
| | Female | 152 | 77.81 | 17.83 | |

* *Significant at 0.05 level*

The t-value obtained on comparing the gender groups is significant ($t = 2.23$; $p<0.05$), indicating that the male and female teachers in the secondary schools are not alike in their social intelligence. A closer observation of the data presented in Table 2 makes it clear that the compared to female teachers, the male teachers possess higher social intelligence.

The third objective of the study was to find out the differential effect of the type of school management on social intelligence of secondary school teachers. The sample selected for the study comprises teachers from Government, Aided and Unaided schools. One way ANOVA was run to find out whether there exist significant differences in the mean SITT scores teachers from different type of schools. The data and result of the ANOVA are given in Table 3.

***Table 3: Summary of One Way ANOVA of Social Intelligence of Secondary School Teachers with regard to Type of School Management***

| SI | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 3816.675 | 2 | 1908.338 | 4.695 | .010 |
| Within Groups | 94706.032 | 233 | 406.464 | | |
| Total | 98522.707 | 235 | | | |

The F-value obtained is significant at .01 level, indicating that there exists a true difference among the groups with regard to their SITT scores. To put it differently, the social intelligence of

secondary school teachers varies according to the type of school management. This makes further analysis indispensable to find out the groups which differ significantly. The *LSD post hoc test* of intergroup comparison was carried out so as to find out the group-pairs which differ significantly. The data and result of the analysis is given in Table 4.

***Table 4: Post Hoc Test (LSD) of Multiple Comparisons for Social Intelligence of Secondary School Teachers from Government, Aided and Unaided Schools***

| (I) School Type | (J) School Type | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound |
| Govt. | Aided | 9.844* | 3.223 | .003 | 3.49 | 16.19 |
| | Unaided | 5.337 | 3.169 | .093 | -.91 | 11.58 |
| Aided | Govt. | -9.844* | 3.223 | .003 | -16.19 | -3.49 |
| | Unaided | -4.507 | 3.262 | .168 | -10.93 | 1.92 |
| Unaided | Govt. | -5.337 | 3.169 | .093 | -11.58 | .91 |
| | Aided | 4.507 | 3.262 | .168 | -1.92 | 10.93 |
| *. The mean difference is significant at the 0.05 level. | | | | | | |

The result of the LSD post-hoc test revealed that significant differences exist between only one pair of the groups compared, *viz*., Government and Aided schools; while no significant difference was found to exist between the other two pairs compared, *i.e.*, between Government and Unaided schools and between Aided and Unaided schools.

The fourth objective of the study was to find out the differential effect of educational qualification on the social intelligence of secondary school teachers. The mean scores of the SITT for the Trained Graduate and Trained Postgraduate Teachers were compared by applying the t-test. The data and result of the analysis carried out in this context is given in Table 5.

***Table 5: Comparison of the SITT Scores of the Sub-samples based on Educational Qualification***

| Groups | Sub-samples | Statistical Indices | | | t-value |
|---|---|---|---|---|---|
| | | N | M | SD | |
| **Educational Qualification** | Graduates | 97 | 80.02 | 22.56 | 0.30* |
| | Postgraduates | 139 | 80.10 | 18.97 | |
| **Not Significant* | | | | | |

The t-value obtained on comparing the social intelligence of trained graduate and trained postgraduate teachers are not significant (t = 0.30; p>0.05), indicating that the groups are alike with regard to their social intelligence. To put it differently, educational qualification is not a decisive factor in discriminating the secondary school teachers on the basis of their social intelligence.

Another important concern of the present investigation was to find out whether the service experience has got any influence on the social intelligence of secondary school teachers. The teachers were classified into three groups, *viz*., high experienced (above M + σ), average experienced (between M + σ and M – σ), and low experienced (below M – σ), on the basis of the Arithmetic Mean (M) and Standard Deviation (σ) estimated from the length of service experience. Intergroup comparison of the mean social intelligence scores of the three groups were further carried out by by applying one way ANOVA. The data and result of the analysis carried out in this context is given in Table 6.

***Table 6: Summary of One Way ANOVA of Social Intelligence of Secondary School Teachers with regard to Service Experience***

| SI | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 4390.328 | 2 | 2195.164 | 5.434 | .005 |
| Within Groups | 94132.379 | 233 | 404.002 | | |
| Total | 98522.707 | 235 | | | |

The estimated F-value is significant at .0l and beyond (vide Table 6, F = 5.434; P<0.01), showing that teachers with High-, Average-, and Low Service Experience differ significantly with regard to their social intelligence. Further, intergroup comparison of the social intelligence scores of the teachers were carried out to find out whether the observed significant difference exist among all the groups compared. The *post hoc* test of intergroup comparison (LSD) was carried out to learn the group-pairs which differ significantly. The data and result of the analysis is given in Table 7.

***Table 7: Post Hoc Test (LSD) of Multiple Comparisons for Social Intelligence of Secondary School Teachers having High-, Average-, and Low Service Experience***

| (I) Service Exper. | (J) Service Exper. | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound |
| High | Average | -2.714 | 3.243 | .403 | -9.10 | 3.68 |
| | Low | 8.355* | 3.966 | .036 | .54 | 16.17 |
| Average | High | 2.714 | 3.243 | .403 | -3.68 | 9.10 |
| | Low | 11.069* | 3.359 | .001 | 4.45 | 17.69 |

| (I) Service Exper. | (J) Service Exper. | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---|---|---|---|---|---|---|
| | | | | | Lower Bound | Upper Bound |
| Low | High | -8.355* | 3.966 | .036 | -16.17 | -.54 |
| | Average | -11.069* | 3.359 | .001 | -17.69 | -4.45 |
| *. The mean difference is significant at the 0.05 level. | | | | | | |

The result of the LSD *post-hoc* test, given in Table 7, reveals that significant differences exist between two pairs of groups compared *viz.,* High Experienced & Low Experienced, as well as Average Experienced & Low Experienced groups of teachers with regard to their social intelligence. The High Experienced and Average Experienced teachers, however, do not differ significantly in their social intelligence.

## CONCLUSIONS

The present study revealed that only 17.80% of the secondary school teachers of Kerala fall in the high social intelligence group. Majority of them (64.41%) possess average social intelligence, while another 17.80% possess low social intelligence. The hypothesis formulated in this context, viz., Hypothesis-1 (the secondary school teachers possess different levels of social intelligence) is, hence, accepted. Comparison of male and female teachers revealed that there exist a gender difference with regard to the social intelligence of secondary school teachers ($t = 2.23$; $p<0.05$). The difference goes in favour of male teachers. The hypothesis formulated in this connection, viz., Hypothesis-2 (there is significant difference in the mean scores of social intelligence of secondary school teachers with respect to their gender) is, hence, accepted. The F-value obtained on comparing the mean SITT-scores ofteachers of Government, Aided and Unaided schools is significant ($F = 4.695$; $p < .010$) revealing that type of school management is a significant factor affecting the social intelligence of teachers. The hypothesis formulated in this regard, viz., Hypothesis-3 (there is significant difference in the mean scores of social intelligence of secondary school teachers with respect to the type of school management) is, therefore, accepted. Comparison of the Trained Graduate and Trained Postgraduate teachers in secondary schools revealed that the groups are alike in their social intelligence ($t = 0.30$; $p>0.05$). The Hypothesis-4, formulated in this context (there is significant difference in the mean scores of social intelligence of secondary school teachers with respect to their academic qualification) is, hence, rejected. The ANOVA run to compare the SITT scores of the secondary school teachers based on their service experience revealed the existence of significant difference among high-, average-, and low experienced teachers in their social intelligence ($F = 5.434$; $p<.005$).The fifth hypothesis (there is significant difference in the mean scores of social intelligence of secondary school teachers with respect to their service experience is, hence, accepted.

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