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## A comparative study of social intelligence of pupil-teachers in relation to their ICT knowledge

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### Abstract

The present study has been done to investigate the study of social intelligence in relation to their ICT knowledge in Kumaun region of Uttarakhand. Descriptive survey method of research has been used. Random sampling technique was used to consist a 484 sample of 300 B.Ed. and 184 D.El.Ed pupil teachers. Social intelligence scale by Chadha and Ganesan and ICT knowledge scale constructed and standardized by the investigator were used to measure social intelligence and ICT knowledge of pupil teachers. The study depicts that there is significant difference in social intelligence between high ICT knowledge and average ICT knowledge of pupil teachers revealing that high ICT knowledge of pupil teachers were found higher in their social intelligence than average ICT knowledge of pupil teachers. High ICT knowledge pupil teachers were found higher in their social intelligence than low ICT knowledge of pupil teachers. The investigator found social intelligence of male pupil teachers were significantly higher than the social intelligence of female pupil teachers. ICT knowledge of male pupil teachers were significantly higher than the ICT knowledge of female pupil teachers.

**Keywords:** ICT knowledge and pupil-teachers, social intelligence, female pupil teachers

### Introduction

The teaching profession in the 21 Century not only requires a rich variety of competences in teaching, but also necessitates a remarkable capacity for adaptability to changes along with changed in surroundings. Training programs for teachers focus on the personal and professional development of teachers. This growth involves acquiring considerable insight into a range of their personal aspects including social intelligence. Albrecht (2006) <sup>[1]</sup> considers social intelligence as a prerequisite for professionally competent teachers. Moderate, linear, positive and meaningful correlation was found between communication skills and social intelligence levels of pre-service social studies teachers (Uygun & Aribas, 2020) <sup>[16]</sup>.

Social intelligence refers to the ability to read other people and understand their intentions and motivations. Social intelligence is the art of building, sustaining and managing the costs of those relationships through vigilant trust'.

Shobha Jadhav (2015) <sup>[4]</sup> made a study on "Enhancement of Social Intelligence of Student Teachers". The investigator had discussed that social intelligence of student teachers can be enhanced by having different activities as per dimensions. For instance, to be patient, teachers need some kind of meditation programmes and exercises to develop patience. To build up their confidence, teachers need confidence building games such as workshops, elocution competition and various activities for self-expression.

Technologies play an important role in training programme of teachers. The knowledge of ICT also required for pre service and in-service teacher during their training programme. A competent teacher has several skills and techniques for providing successful teaching.

The use of technology in education is one of the main challenges for education. Nowadays there is fast growing interest in using modern communication technologies in the fields of education and communication. Shavinina (2001) <sup>[13]</sup> states that the importance of ICT is quite clear from the educational perspective. Teaching with the chalk board, textbooks, radio/television have been used for educational purpose over the years, none has quite impact on the educational process like the computer and Internet, while television and film has impact on the audiovisual facilities of the users.

He refers that ICT has the capacity to provide higher interactive potential for users to develop their individual, intellectual and creative ability. The main purpose of ICT is to develop human mental resources, which allow people apply the existing knowledge and produce new knowledge. Ramsay (2001)<sup>[18]</sup> said that learning with ICT was considered to be a means of nurturing meaningful communication, creativity, design and problem solving. It can facilitate differentiation and individualization in education. Hence, this study is an effort on the part of the investigator to find out the level of social intelligence in relation to their ICT knowledge of the student teachers. This will help them improve themselves in teaching after training.

### Need & Significance of the present study

Social Intelligence is used to achieve social goals, resulting from any behavioural system. It appears to be an important psychological ability that relate to success in life. According to Walker and Foley (1973)<sup>[17]</sup>, Social Intelligence is the ability to deal with people positively, understand the feelings, thoughts and intentions of others, judge correctly the feelings, moods and motivation of individuals. Teachers with such skills are listed as people with good social intelligence and are more efficient as educators. Therefore, it is important for teachers to avail social intelligence.

From the above discussion of significance, it is crystal clear that teacher must have teaching aptitude, moral intelligence, social intelligence and ICT knowledge well-adjusted in school as well as in the society so that he may be able to create perfect condition for teaching learning. UNESCO (2002) assumed ICT: The infusion of technology in education has been seen as a means to enhance and extend not only the instructional methods, but also the learning process in this 21st century. The use of ICT is also expected to enhance the acquisition and use of knowledge and skills for all. ICT use will improve the efficiency and effectiveness of the management of education, at all levels.

Therefore, it will be interesting to see the impact of these variables of pupil teachers. Keeping in mind the importance of these variables the investigator has taken the topic "A comparative study of teaching aptitude, social and moral intelligence of pupil-teachers in relation to their ICT knowledge".

### Objectives

The major objectives of the study were as under:-

1. To study and compare the social intelligence of pupil teachers on the basis of their ICT knowledge.
2. To study and compare the dimension-wise social intelligence of male and female pupil-teachers.
3. To study and compare the social intelligence of male and female pupil-teachers.
4. To study and compare the ICT knowledge of male and female pupil-teachers.

### Hypotheses of the study

1. There is no significance difference in the social intelligence of pupil teachers on the basis of their ICT knowledge.
  - 1.1 There is no significance difference in the social intelligence of pupil teachers on the basis of their low and average ICT knowledge.
  - 1.2. There is no significance difference in the social intelligence of pupil teachers on the basis of their average and high ICT knowledge.

- 1.3. There is no significance difference in the social intelligence of pupil teachers on the basis of their high and low ICT knowledge.

2. There is no significance difference in the dimension wise social intelligence of B.Ed. and D.Ed. pupil teachers.

3. There is no significance difference in the social intelligence of B.Ed. and D.Ed. pupil teachers.

4. There is no significance differencing the ICT knowledge of B.Ed. and D.Ed. pupil teachers.

### Delimitation of the study

This study was limited by a small sample size that covered all the six district of Kumauni region. Out of six districts of kumaun region only almora, nainital, Pithoragarh and champawat district were selected for the present investigation. The study was delimited to pupil Teachers studying in Colleges and institutions of Teacher Education (B.Ed.), and District Institute of Education and Training (D.I.E.Ts). Only 484 pupil teachers were selected for the proposed investigation.

### Method adopted in present study

In the present study descriptive survey method was employed to know the teaching aptitude of prospective teachers in relation to their ICT knowledge.

### Sample

Random sampling technique was adopted for the selection of sample. Total 484 pupil-teachers have been taken for the study in the academic session 2017-18. Total 300 B.Ed. and 184 D.I.E.Ts. Ed pupil-teachers were selected randomly from government financed and self-financed colleges of education of Almora, Nainital, Pithoragarh and Champawat districts.

### Research tools used in the present study

Keeping in mind the objectives of the study, the investigator had used the following research tools to collect the data.

1. Social intelligence scale developed and standardized by Chadha & Ganesan, 2002.
2. ICT knowledge scale developed and standardized by the investigator.

### Statistical Techniques Used

Mean, Standard deviation and 't' ratio was used to analyse the data.

### Results and Discussions

**Table 1:** Mean, SD, and t-value of low and average social intelligence of pupil-teachers on the basis of their ICT knowledge

Group	N	Mean	S.D.	T-Value	Level of significance
Low ICT knowledge	130	106.59	12.39	0.97	N.S.
Average ICT knowledge	224	108.05	15.42		

Data presented in Table 1.1 show that low ICT knowledge pupil-teachers and average ICT knowledge pupil-teachers were found almost similar in their social intelligence. No statistically significant difference was found in social intelligence of low and average ICT knowledge group (T=0.97). Its clear picture is depicted by bar graph in the figure 4.4 although; there seem some differences in mean value of these investigated groups, yet the difference was not found statistically significant at any level.

The reason may be that both low and average ICT knowledge group have same flexible behavior, same adaptation skills, same ability to relate peoples, perceive same social situations, same group work flexibility and same communication channel to access knowledge. So both the groups had similar social intelligence.

So the null hypothesis No 1 “There is no significant difference in social intelligence of pupil-teachers on the basis of their low and average ICT knowledge” is accepted.

**Table 2:** Mean, SD, and t-value of average and high social intelligence of pupil-teachers on the basis of their ICT knowledge

Group	N	Mean	S.D.	T-Value	Level of significance
Average ICT knowledge	224	108.05	15.42	2.86	0.01
High ICT knowledge	130	112.66	14.19		

Data presented in Table 2 reveal that the social intelligence of pupil-teachers with high ICT knowledge were found higher than social intelligence of pupil-teachers with average ICT knowledge. The difference was found statistically significant at 0.01 level of significance (T=2.86).

The reason may be that high ICT knowledge group had more adaptation skills, social skills and group work flexibility that helps in interaction with others in a pleasant way so teachers possessing such behaviors are socially intelligent and greatly aware of ICTs because ICT use is linked to social skills, social capital, interpersonal communication & well-being. So high ICT knowledge group well known that ICT has capable of helping people to develop social intelligence.

So the null hypothesis No 3. “There is no significant difference in teaching aptitude of pupil-teachers on the basis of their average and high ICT knowledge” is rejected.

**Table 3:** Mean, SD, and t-values of high and low social intelligence of pupil-teachers on the basis of their ICT knowledge

Groups	N	Mean	S.D.	T-Value	Level of significance
High ICT Knowledge	130	112.66	14.19	3.67	0.01
Low ICT Knowledge	130	106.59	12.39		

Data presented in Table 4 reveal that the social intelligence of pupil-teachers with high ICT knowledge were found higher than social intelligence of pupil teachers with low ICT knowledge. The difference was found statistically significant at 0.01 level of significance (T=3.67).

The reason may be that high ICT knowledge group had more adaptation skills, social skills and group work flexibility that helps in interaction with others in a pleasant way so teachers possessing such behaviors are socially intelligent and greatly aware of ICTs than low ICT knowledge group because use of ICT linked to social skills, social capital, interpersonal communication & well-being. So high ICT knowledge group know well that ICT has capable of helping people to develop social intelligence. Another reason might be that pupil-teachers whose families have a higher social SES level and with an easier access to ICT are social intelligent when compared to students with a lower SES level and a limited access to ICTs. Aaron lee Wallis (2015) [19] explored the relationship between ICT & social skills as related to the performance on a social task. It suggests that ICT affect the social skills of it users.

So the null hypothesis No. 1.3 “There is no significant difference in social intelligence of pupil-teachers on the basis of their high and low ICT knowledge” is rejected.

**Table 4:** Dimension wise Mean, SD, and t-values of Social Intelligence of male and female pupil teachers

Dimensions of social intelligence	Groups	N	Mean	S.D.	T-Value	Level of significance
Patience	Male	195	20.94	3.82	2.32	0.05
	Female	287	20.08	4.24		
Cooperativeness	Male	195	25.85	4.97	2.00	0.05
	Female	287	24.86	5.82		
Confidence	Male	195	19.72	3.75	0.24	N.S
	Female	287	19.52	4.22		
Sensitivity	Male	195	20.22	3.86	4.22	0.01
	Female	287	21.74	4.13		
Recognition of social environment	Male	195	1.21	0.91	3.27	0.01
	Female	287	1.57	1.55		
Tactfulness	Male	195	4.03	1.174	0.63	N.S
	Female	287	3.96	1.36		
Sense of humour	Male	195	4.05	1.64	4.13	0.01
	Female	287	3.43	1.74		
Memory	Male	195	11.12	1.83	1.26	N.S
	Female	287	11.31	1.53		

Data presented in the Table 2 reveal that the mean score of social intelligence of male pupil-teachers with respect to patience and co-cooperativeness and sense of hum our dimensions were significantly higher than the mean score of social intelligence of female pupil-teachers however, the mean score of social Intelligence of female pupil-teacher with respect to sensitivity and recognition of social environment were significantly higher than the mean score of social intelligence of male pupil-teacher. It was also found that the mean score of social Intelligence of male pupil-teachers with respect to confidence and tactfulness and memory do not differ significantly than the mean score of social intelligence of female pupil-teachers.

So the null hypothesis No. 2 “There is no significant difference in the dimension wise social intelligence of male and female pupil-teachers” is partially rejected.

**Table 5:** Mean, SD, and t-value of social intelligence of male and female pupil-teachers

Gender	N	M	S.D	T-Value	Level of Significance
Male	195	108.49	11.20	2.33	0.05
Female	287	105.33	12.45		

Data presented in Table 3 reveal that male pupil-teachers were found higher in their social intelligence mean score then female pupil-teachers. The difference was found statistically significant at 0.05 level of significance (T=2.33). This finding is supported by Maria Victoria (2003) [20], Deborah (2005) [21], Parveen Rani (2016) [22] and Lal Kumar (2008) [23]. This result is contradictory to the observations made by Gnanadvan (2007) who did not found any gender differences. The reason may be that the flexible behavior of teacher helps in interactions with others in a pleasant way, so teachers who possessing such behaviors are socially intelligent. So the null hypothesis No 3 “There is no significant difference in the social intelligence of male and female pupil-teachers” is rejected.

**Table 6:** Mean, SD, and t-value of ICT Knowledge of male and female pupil-teachers

Gender	N	M	S.D	T-Value	Level of significance
Male	195	40.80	7.21	2.08	0.05
Female	287	39.26	9.19		

Data presented in Table 4 reveal that male pupil-teachers were found higher in their ICT knowledge mean score than female pupil-teachers. The difference was found statistically significant at 0.05 level of significance ( $T=2.08$ ). Its clear picture is depicted by bar graph in the figure 4.30. Beena and Madhu Mathur (2012) <sup>[24]</sup> found that male students have shown higher occupation as compare to female students for the use of ICT in education. This finding is supported by Nima Joseph & Annaraja (2006) <sup>[25]</sup>, GR Angadi (2014) <sup>[26]</sup>. The reason may be that male pupil-teachers may have more ICT experience so they had positive ICT attitude because of this reason they were more interested and more self-confidence in their ICT use such as e-mail, internet, computer and social media etc. Women have fewer resources than men, and more limited economic opportunities however in reality gender issues are not holistically addressed in the application of ICT.

So the null hypothesis No.4 “There is no significant difference in the ICT knowledge of male and female pupil-teachers” is rejected.

### Conclusions

1. Low ICT knowledge pupil-teachers and average ICT Knowledge pupil-teachers were found more or less similar in their social intelligence.
2. High ICT knowledge Pupil-teachers were found higher in their social intelligence than average ICT knowledge Pupil-teachers.
3. High ICT knowledge Pupil-teachers were found higher in their social intelligence than low ICT knowledge Pupil-teachers.
4. Mean score of social Intelligence of male pupil teachers with respect to Patience and Co-cooperativeness were significantly higher than the mean score of social Intelligence of female pupil teachers however, the mean score of social Intelligence of female pupil teacher with respect to Sensitivity and Recognition of social environment and Memory were significantly higher than the mean score of social Intelligence of male pupil teacher. It was also found that the mean score of social Intelligence of male pupil teachers with respect to Confidence and Tactfulness do not differ significantly than the mean score of social Intelligence of female pupil teachers.
5. Social intelligence of male pupil teachers was significantly higher than the Social intelligence of female pupil teachers.
6. ICT Knowledge of male pupil-teachers were significantly higher than the ICT Knowledge of female pupil teachers.

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