METHOD OF TEACHING, LOCALITY AND INTELLIGENCE AS DETERMINANTS OF ACHIEVEMENT IN SOCIAL SCIENCE AMONG SEVENTH GRADERS

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Abstract

The present study investigated the main and interaction effect of method of teaching, locality and intelligence on achievement in Social Science among seventh graders. Achievement in Social Science was treated as dependent variable whereas method of teaching (smart classroom teaching and conventional teaching); locality (rural and urban); and of intelligence (high and low level of intelligence) were treated as independent variables. Descriptive survey method was employed for the present study. A sample of 430 students of class VII (216 students from the schools having smart classrooms and 214 students from the schools without smart classrooms) was taken by using multi-stage stratified random sampling technique. General Intelligence Test (GIT) by Mohsin (1990) was used to determine the intelligence of seventh graders. An Achievement Test in Social Science for seventh graders developed by the investigators was also used to assess their achievement. The obtained data was analyzed by using Balanced Three Way ANOVA with 2×2×2 factorial design. Hartley's Test of Homogeneity of Variance was also applied to test the assumption of homogeneity of variance for ANOVA. The findings of the study revealed that i) Main effect of method of teaching, locality and intelligence on achievement in Social Science among seventh graders was found significant. ii) A significant interaction effects of method of teaching and locality was reported on achievement in Social Science among seventh graders. Further, no significant interaction effect of method of teaching and intelligence; and locality and intelligence was found on achievement in Social Science among seventh graders. iii) The findings of the study further revealed that triple interaction effect of method of teaching, locality and intelligence was found significant on achievement in Social Science among seventh graders

Keywords: *Method of Teaching, Locality, Intelligence and Achievement*.

Introduction

Education, as a planned endeavour aims at making children capable of becoming active, responsible, productive, and caring members of the society. Social Science as a discipline has the unique capability of being able to look at both developmental and normative issues of the society. It includes a wide range of content drawn from the disciplines of History, Geography, Civics, Political Science, Economics and Sociology, therefore this is an indispensible part of the school curriculum at elementary level which is essential to provide social cultural and analytical skills required to adjust in increasingly interdependent world. It is the only subject which deals with the issues of equality, justice, peace and dignity in society and polity. Social Science is necessary for fulfilling the constitutional goals. Thus, the subject Social Science is of great importance in the curriculum. A number of factors that affects achievement of the students include many school

factors, family factors, social factors, mental and physical health of the students, locality, gender and intelligence etc.

In the traditional approach, many teachers widely used teacher-centred methods to impart knowledge to learners comparative to student-centred methods. Until today, questions about the effectiveness of teaching methods on student learning outcomes have consistently raised considerable interest in the field of educational research Moreover, research on teaching and learning constantly endeavour to examine the extent to which different teaching methods enhance growth in student learning. Wiggins (1987)[27] reported that interaction between the teacher and students during the teaching and learning process encourages the students to search for knowledge rather than the lecturer monopolizing the transmission of information to the learners. Lindquist (1995)[13] indicated that student-centred methods promote greater mastery of the subject than centralizing the flow of knowledge as a one way channel from the lecturer to the student. Ghetiya's (2000)[10] revealed that methods of teaching were effective on academic achievement. Sevindik (2010)[22] showed that lectures given through smart classroom significantly increase the academic achievement of the students. Aksoy (2012)[2] determined that animation technique is more effective than traditional teaching methods in terms of enhancing students' achievement. Ganyaupfu (2013)[9] demonstrated that teacher-student interactive method was the most effective teaching method, followed by student-centred method while the teacher-centred approach was the least effective teaching method. Chachra (2015)[4] showed that the teaching through smart classroom is more effective than conventional teaching at all the three intelligence levels. Menon (2015)[15] concluded that students achieved higher when taught in smart classes as compared to conventional mode of teaching. Bano (2016)[3] revealed that smart classroom learning positively affects the performance of students in English. Roscigno and Crowley (2001)[20] reported that the academic performance of rural children typically lags behind that of urban children. Mittal (2008)[16] concluded that there was significant difference in academic achievement of secondary level students of different localities; academic achievement of urban locality was better than the academic achievement of rural locality of secondary level students. Siddi (2013)[23] concluded that locality has significant influence on academic achievement in Social Studies of 7th class students. The association between cognitive abilities and academic achievement has been a hot topic of various research studies in the field of education. The prominent among the cognitive abilities are that of intelligence; and they are the most influencing factor of students' achievement. Chandra and Azimmudin (2013)[5] reported a significant influence of intelligence on academic achievement.

The primary purpose of teaching at any level of education is to bring a fundamental change in the learner (Tebabal & Kahssay, 2011) [25]. The teacher centred approach is the traditional or the conventional teaching where the teacher plays an active role and the student passive role in the learning process. The student centred approach is a teaching method where both the teacher and the student play active roles in the learning process. Many studies have concluded that the use of new technologies in teaching learning process is need of the hour. Students who are taught using modern method of teaching i.e. computer assisted instruction or smart classroom etc. perform better and have higher achievement than the students taught through conventional teaching i.e.

lecture method. Therefore, the investigators due to interest in exploring the various factors responsible for the low achievement and high achievement of the students considered it worthwhile to study the impact of method of teaching, locality and intelligence on achievement in Social Science among seventh graders.

OBJECTIVES OF THE STUDY

1. To study the main effect of, (a) method of teaching, (b) locality and (c) intelligence on achievement in Social Science among seventh graders.
2. To study the interaction effect of; (a) method of teaching and locality; (b) method of teaching and intelligence; and (c) locality and intelligence on achievement in Social Science among seventh graders.
3. To study the interaction effect of method of teaching, locality and intelligence on achievement in Social Science among seventh graders.

HYPOTHESES OF THE STUDY

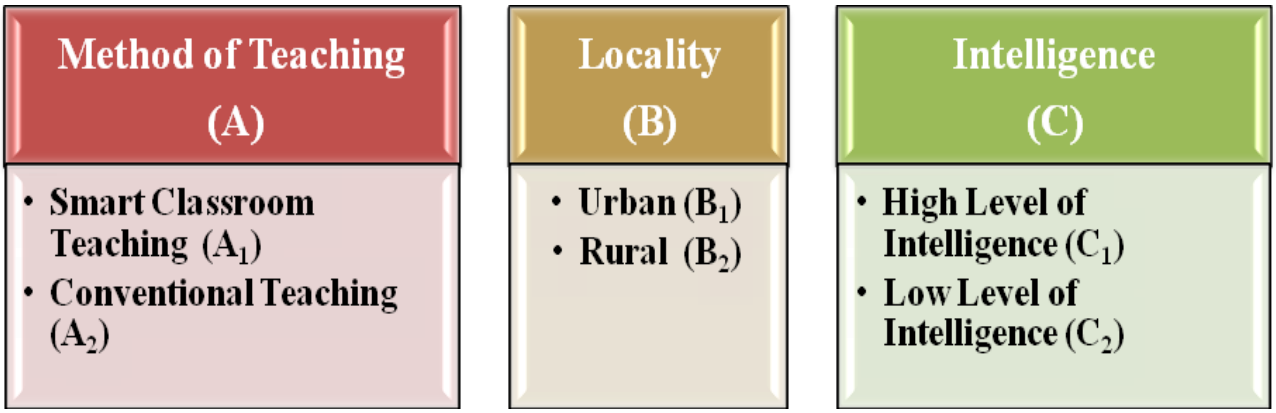
Ho1 There exists no significant effect of, a) method of teaching b) locality and c) intelligence on achievement in Social Science among seventh graders.

Ho2 There exists no significant interaction effect of; a) method of teaching and locality; b) method of teaching and intelligence; and c) locality and intelligence on achievement in Social Science among seventh graders.

Ho3 There exists no significant interaction effect of method of teaching, locality and intelligence on achievement in Social Science among seventh graders.

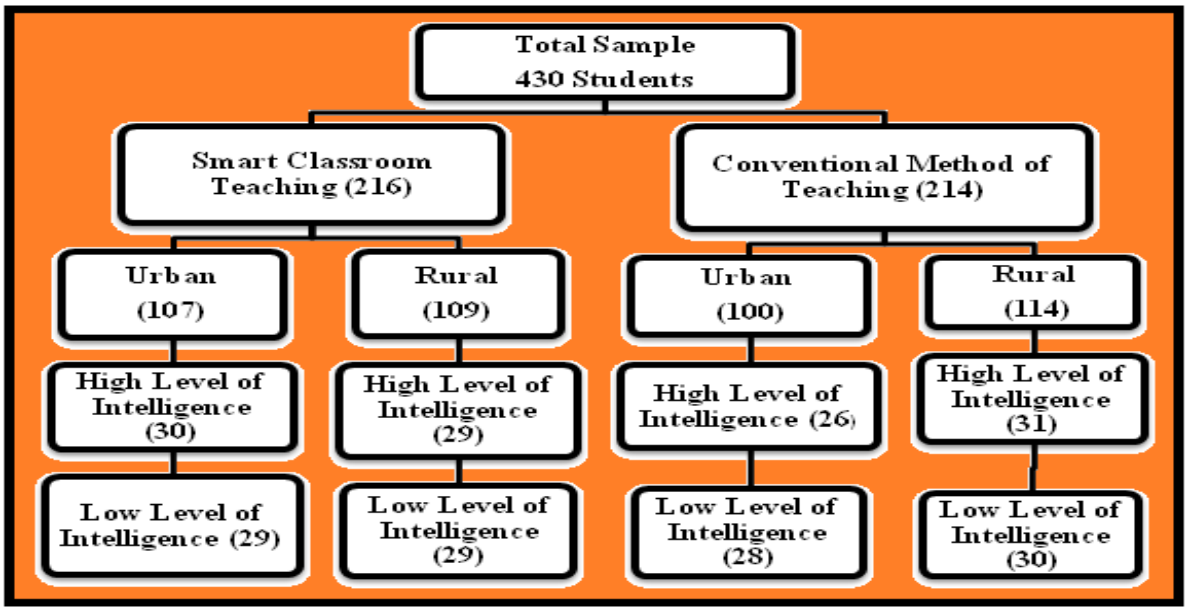
Design And Methodology

In the present study, descriptive survey method was used. The 2×2×2 factorial randomized group design was used to analyze the data. The independent variables i.e. method of teaching, locality and intelligence were varied at the two levels as shown below in the schematic design.



Sample

A sample of 430 class VII students was selected by using multi-stage stratified random sampling technique on the basis of method of teaching, locality and intelligence. The students having high level of intelligence (IQ 113 and above) and having low level of intelligence (IQ 100 and below) were taken into consideration for the present study. The students of moderate level of intelligence (IQ 100-112) were not considered for the present study. Distribution of sample has been depicted below:



Distribution of Sample

Tools Used

1. General Intelligence Test (GIT) by Mohsin (1990) was used to determine the intelligence of seventh graders. There are 156 items under 6 sub-tests in this test. These items pertain to logical reasoning, analogies, similarities, odd-one and language ability. The time limit for this test is 40 minutes.
2. Achievement Test in Social Science developed by the investigators was used to measure achievement in Social Science among seventh graders. The Achievement Test was consisted of 30 questions of Social Science for seventh graders.

Statistical Techniques Used

The data was analysed by using descriptive as well as inferential statistics. The Three-Way Analysis of Variance (ANOVA) with 2×2×2 Factorial Design was computed using SPSS 20 version to study the main effect and interaction effects of the independent variables i.e. method of teaching, locality and intelligence on achievement in Social Science among seventh graders. The Hartley's Test of Homogeneity of Variance was also used to test the assumption of homogeneity of variance before applying Three-Way ANOVA. Wherever F-value was found significant,'t'-test was employed for further investigation.

Data Analysis And Discussion Of Result

The main objective of the present study was to find out the main and interaction effects of method of teaching, locality and intelligence on achievement in Social Science among seventh graders. The independent variables method of teaching, locality and intelligence were coded as A, B, C respectively and were varied into two ways as: smart classroom teaching (A_1) and conventional teaching (A_2); urban (B_1) and rural (B_2); and high level of intelligence (C_1) and low level of intelligence (C_2). The means and S.D's of different sub-samples have been presented in the Table-1 and Figure 1. The summary of ANOVA (2×2×2) has also been presented in Table-2, which is analyzed in terms of main effects and interaction effects.

Table-1

Mean's and SD's of Sub Samples of 2×2×2 Design for Achievement of Students in relation to Methods of Teaching, Locality and Intelligence

Method of Teaching (A)	Locality (B)	High Level of Intelligence (C_1)	Low Level of Intelligence (C_2)
Smart Classroom Teaching (A_1)	Urban (B_1)	Mean= 21.54 SD= 1.581 N= 26	Mean= 18.62 SD= 1.299 N= 26
	Rural (B_2)	Mean= 18.88 SD= 1.143 N= 26	Mean= 17.08 SD= 1.623 N= 26
Conventional Teaching (A_2)	Urban (B_1)	Mean= 18.04 SD= 1.076 N= 26	Mean= 16.04 SD= 1.483 N= 26
	Rural (B_2)	Mean= 18.77 SD= 1.840 N= 26	Mean= 14.46 SD= 2.017 N= 26

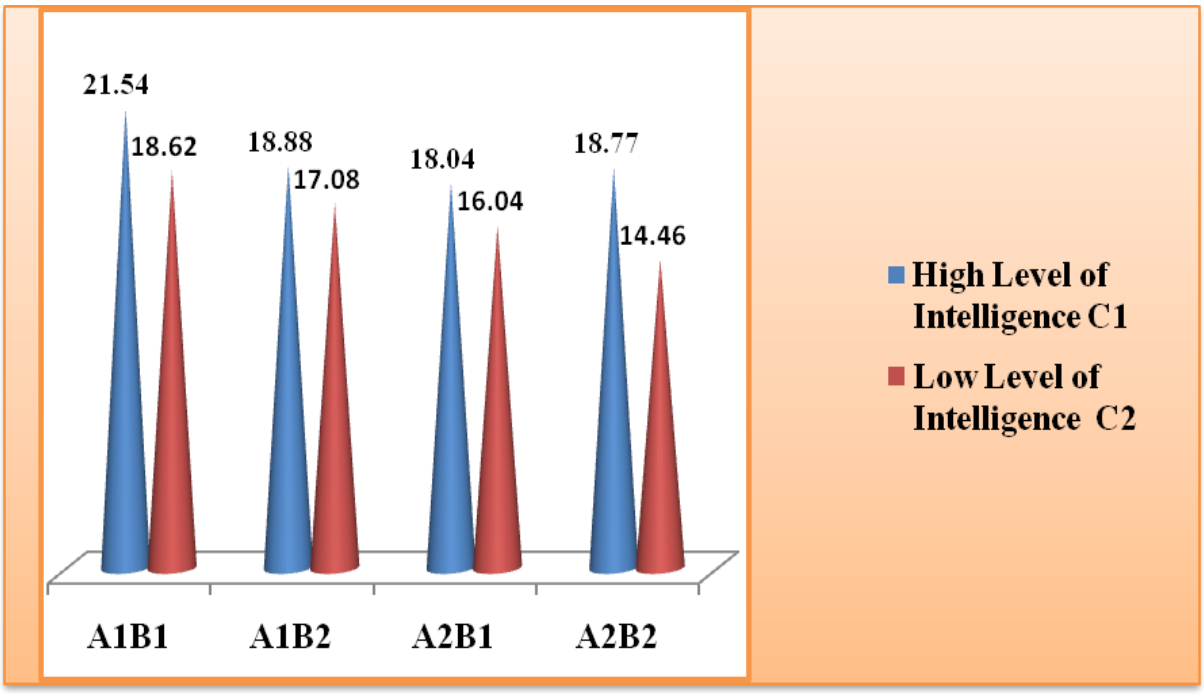


Fig.1: Mean Scores of Sub Samples of 2×2×2 Design for Achievement in Social Science among Seventh Graders with respect to Method of Teaching, Locality and Intelligence.

Table –2

Summary of 3 Way ANOVA (2×2×2 Factorial Design) for Achievement of Students in relation to Methods of Teaching, Locality and Intelligence

Source of Variance	df	Sum of Squares (SS)	Mean Sum of Squares (MS)	F-ratios
(A) Method of Teaching	1	252.120	252.120	98.079**
(B) Locality	1	82.505	82.505	32.096**
(C) Intelligence	1	396.005	396.005	154.053**
A× B Interaction	1	36.389	36.389	14.156**
A× C Interaction	1	8.082	8.082	3.144 (NS)
B× C Interaction	1	4.620	4.620	1.797 (NS)
A×B×C Interaction	1	38.082	38.082	14.814**
Between Cells	7	1331.918		
Within Cells	200	514.115	2.571	
Total	207			

**** Significant at 0.01 level** **NS = Not Significant**

Main Effect of Method of Teaching, Locality and Intelligence on Achievement in Social Science among Seventh Graders.

Method of Teaching (A)

It is clear from the table 2 that F- ratio 98.079 for the main effect of method of teaching on achievement in Social Science among seventh graders is significant at 0.01 level leading to the inference that method of teaching has a significant effect on achievement in Social Science among seventh graders. Therefore, the null hypothesis $H_0$1 (a), "There exists no significant effect of method of teaching on Achievement in Social Science among Seventh Graders" is rejected. This result is in agreement with the findings of Lindquist (1995)[13] who indicated that student-centred methods promote greater mastery of the subject than centralizing the flow of knowledge as a one

way channel from the lecturer to the student. The present result is also supported by the findings of Ganyaupfu (2013)[9] who demonstrated that teacher-student interactive method was the most effective teaching method, followed by student-centred method while the teacher-centred approach was the least effective teaching method. This result is contrary to the findings of Adeyemi (2012)[1] who found no significant effect of treatment (Computer Assisted Instruction and Conventional Methods) on student achievement in Social Studies.

Locality (B)

The table 2 shows that the F-ratio of 32.096 for main effect of locality on achievement in Social Science among seventh graders is significant at 0.01 level which reveals that locality has a significant effect on achievement in Social Science among seventh graders. In this case the null-hypothesis $H_0$1 (b), 'There exists no significant effect of locality on achievement in Social Science among seventh graders' stands rejected. The present finding is supportive to the findings of Gakhar and Aseema (2004)[8], Mehera (2004)[14], Krishna (2008)[12], Siddi(2013)[23], and Sekhar (2012)[21] who reported that locality of individuals do have significant difference on achievement. Owoeye (2011)[18] had also proven that students in urban areas had better academic achievement than their rural counterpart. The present result is contrary to the findings of Panchalingappa (2004)[19], and Kaur, Ram Niwas and Rai (2015)[11] who reported that locality of individuals do not have significant difference on achievement.

Intelligence (C)

It can be inferred from Table 2 that F-ratio 154.053 for the main effect intelligence on achievement is significant at 0.01 level which indicates that intelligence has a significant main effect on achievement in Social Science among seventh graders. Therefore, the null hypothesis $H_0$1 (c), 'There exists no significant effect of intelligence on achievement in Social Science among seventh graders' stands rejected. The present results support Chandra and Azimmudin (2013)[5] who revealed a significant influence of intelligence on academic achievement. Deary, Strand, Smith & Fernandes (2006)[7] also found a strong and positive relationship between intelligence and academic achievement. This result is contrary to the findings of Naderi ,Abdullah , Hamid and Sharir (2008)[17] who revealed that intelligence is not the predictors of student academic achievement.

Double Interaction Effect of Method of Teaching, Locality and Intelligence on Achievement in Social Science among Seventh Graders.

Method of Teaching (A) × Locality (B)

The table 2 concludes that F-ratio 14.156 between method of teaching and locality (A×B) is significant at 0.01 level which leads to the conclusion that method of teaching and locality interact with each other with respect to achievement in Social Science among seventh graders. Therefore, the null hypothesis $H_0$2 (a), 'There exists no significant interaction effect of method of teaching and locality on achievement in Social Science among seventh graders' stands rejected. 't' test was further employed to find out the significance of difference in mean scores of achievement in Social Science among seventh graders for different groups. The results for the same have been given in Table 3. The mean scores for achievement of different groups for method of teaching and locality have been also presented in the form of Fig. 2.

Table-3

't' values for Mean Scores of Achievement of Students for Different Groups of Method of Teaching (A) ×Locality (B)

Group	N		Mean		SD		t-values
A_1B_1 vs A_2B_1	52	52	20.08	17.04	2.057	1.633	8.44**
A_1B_2 vs A_2B_2	52	52	17.98	16.62	1.663	3.030	2.83**
A_1B_1 vs A_2B_2	52	52	20.08	16.62	2.057	3.030	6.78**
A_1B_2 vs A_2B_1	52	52	17.98	17.04	1.633	1.633	2.94 **
A_1B_1 vs A_1B_2	52	52	20.08	17.98	2.057	1.633	5.67**
A_2B_1 vs A_2B_2	52	52	17.04	16.62	1.633	3.030	.87 (NS)

**** Significant at 0.01 level** **NS= Not Significant**

A_1 = Smart Classroom Teaching **A_2 = Conventional Teaching**

B_1 = Urban **B_2 = Rural**

A close perusal of Table 4.3.4(a) explores that t-values 8.44, 2.83, 6.78, 2.94 and 5.67 for the achievement scores of the groups A_1B_1 vs A_2B_1 ; A_1B_2vs A_2B_2; A_1B_1 vs A_2B_2; A_1B_2 vs A_2B_1; and A_1B_1vsA_1B_2 respectively have been found to be significant at 0.01 level leading to the conclusion that these groups differ significantly with respect to their achievement in Social Science. Table-3 further reveals that the 't' value (.87) for urban and rural school students taught through conventional teaching (A_2B_1vsA_2B_2) has been found insignificant. On the basis of mean scores, it can be concluded that urban school students taught through conventional teaching have slightly higher achievement in Social Science than their rural counterparts.

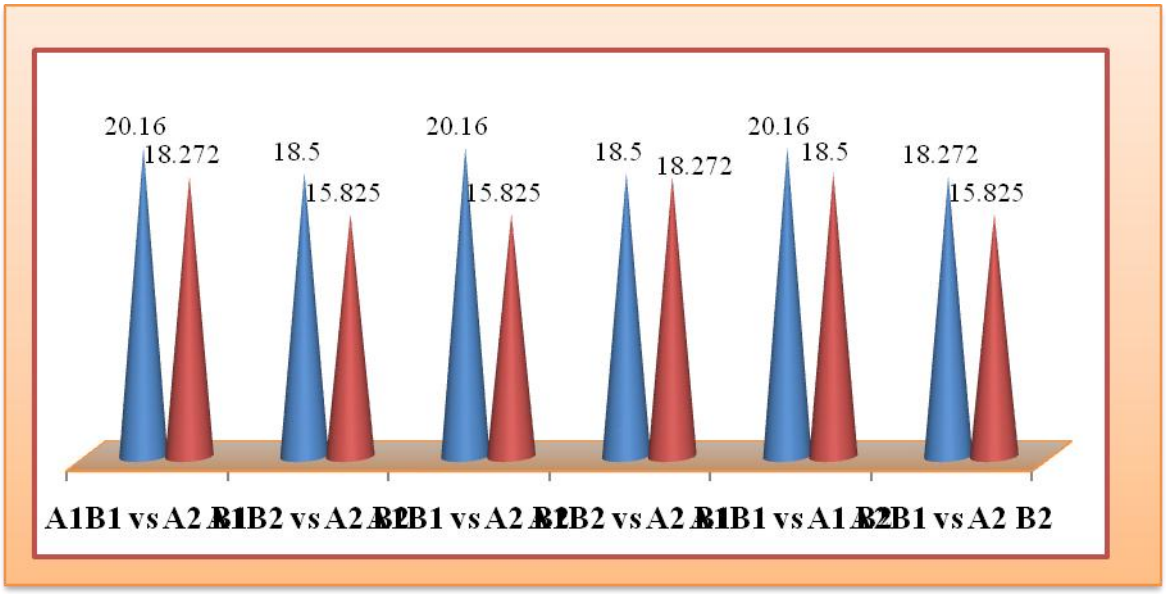


Fig. 2: Mean Scores for Interaction Effect of Method of Teaching and Locality on Achievement in Social Science among Seventh Graders

The interaction effect of method of teaching i.e. smart classroom teaching and conventional teaching and locality on achievement in Social Science among seventh graders has been also presented in the form of line graph in Fig. 3 which shows a significant interaction effect of the two variables (method of teaching and locality) on achievement in Social Science among seventh graders.

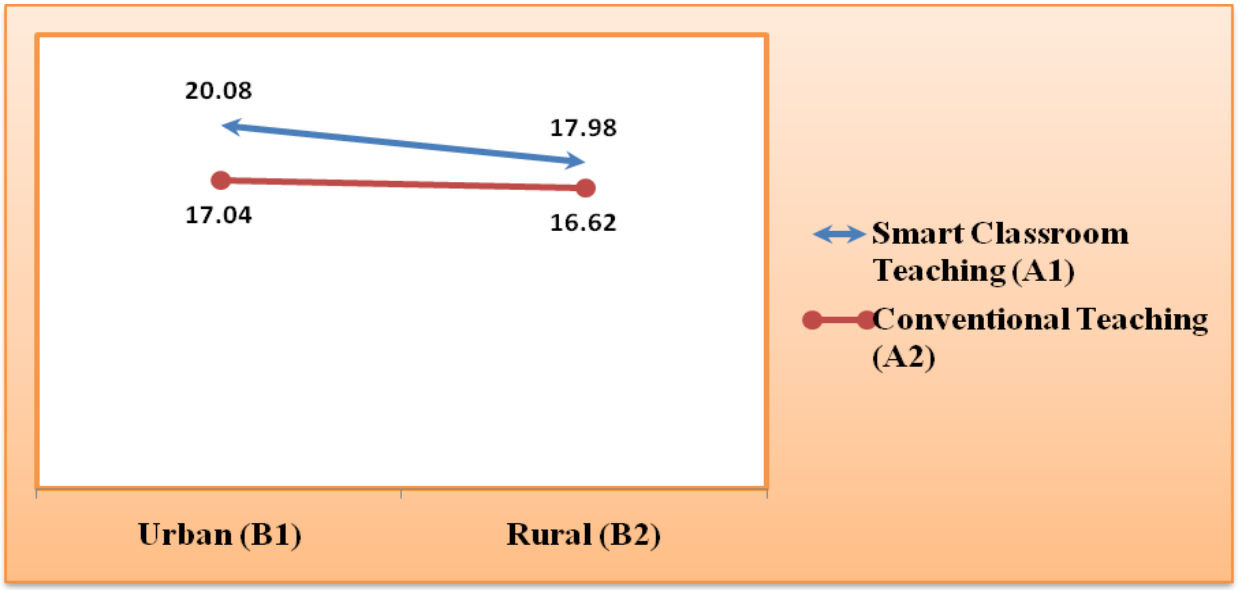


Fig.3: Interaction Effect of Method of Teaching and Locality on Achievement in Social Science among Seventh Graders

Method of Teaching (A) × Intelligence (C)

A close perusal of Table-2 indicates that the F- ratio 3.144 between method of teaching and intelligence (A×C) is not significant and leads to the inference that method of teaching (A) and intelligence (C) do not interact with each other with respect to achievement in Social Science among seventh graders. Therefore, the null hypothesis $H_0$2 (b), 'There exists no significant interaction effect of method of teaching and intelligence on achievement in Social Science among Seventh graders' stands retained.

Locality (B) × Intelligence (C)

A close perusal of Table-2 indicates that the F- ratio 1.797 between locality (B) intelligence (C) has been found insignificant leading to the inference that locality (B) and intelligence (C) do not interact with each other with respect to achievement in Social Science among seventh graders. Therefore, the null hypothesis $H_0$2 (C), 'There exists no significant interaction effect of locality and intelligence on achievement in Social Science among Seventh graders' stands retained.

Triple Interaction Effect of Method of Teaching, Locality and Intelligence on Achievement in Social Science among Seventh Graders.

Method of Teaching × Locality × Intelligence (A×B×C)

An inspection of the Table-2 indicates that the F- ratio 14.814 for the interaction between method of teaching, locality and intelligence with respect to achievement in Social Science among seventh graders is significant at 0.01 level which leads to the inference that method of teaching, locality and intelligence interact with each other. Therefore, the null hypothesis $H_0$3, 'There exists no

significant interaction effect of method of teaching, locality and intelligence on achievement in Social Science among Seventh Graders' is rejected. 't' test was employed to find out the difference in mean scores of achievement for different groups. The results for the same have been presented in the Table-5.

Table-5 exhibits that't'-values 14.16, 6.31, 6.21, 5.78, 8.92, 3.28, 8.13, 3.22, 7.95, 5.46, 7.78, 11.46, 5.43, 5.61, 8.85, 3.91, 9.82, 3.31, 5.14, and 4.54 for the groups $A_1B_1C_1$vs $A_2B_2C_2$; $A_1B_2C_1$vs $A_2B_1C_2$; $A_1B_1C_1$vs$A_1B_1C_2$; $A_1B_1C_1$vs$A_1B_2C_1$; $A_1B_1C_1$vs $A_1B_2C_2$; $A_1B_1C_2$ vs$A_1B_2C_2$; $A_2B_2C_2$ vs $A_2B_2C_1$; $A_2B_2C_2$vs $A_2B_1C_2$; $A_2B_2C_2$vs$A_2B_1C_1$; $A_2B_2C_1$vs $A_2B_1C_2$; $A_1B_1C_1$vs $A_2B_1C_1$; $A_1B_1C_1$vs$A_2B_1C_2$; $A_1B_1C_1$vs$A_2B_2C_1$; $A_1B_1C_2$vs $A_2B_1C_2$; $A_1B_1C_2$vs$A_2B_2C_2$; $A_1B_2C_1$vs$A_1B_2C_2$; $A_1B_2C_1$vs $A_2B_2C_2$; $A_1B_2C_2$vs $A_2B_2C_1$; $A_1B_2C_2$vs $A_2B_2C_2$; and $A_2B_1C_1$vs$A_2B_1C_2$ respectively have been found significant at 0.01 level leading to the inference that these groups differ significantly with each other in relation to achievement in Social Science. Table-5 further shows that 't' values 2.05, 2.05, and 2.12 for the groups $A_1B_2C_1$vs$A_2B_1C_1$; $A_1B_2C_1$vs$A_2B_1C_1$; and $A_1B_2C_2$vs $A_2B_1C_2$ respectively have been found significant at 0.05 level only which means these groups differ slightly with each other with respect to achievement in Social Science. It is also evident from the same table that 't' values .31, .60, 1.55, 1.35, and .23 for the remaining groups have not been found significant leading to the conclusion that these groups do not differ with each other in relation to achievement in Social Science.

Table -5

't'- values for Mean Scores of Achievement of Students for Different Groups of Method of Teaching, Locality and Intelligence (A×B×C)

Groups	N		Mean		SD		t-values
$A_1B_1C_1$vs $A_2B_2C_2$	26	26	21.54	14.46	1.581	2.017	14.16**
$A_1B_1C_2$ vs$A_2B_2C_1$	26	26	18.62	18.77	1.299	1.840	.31(NS)
$A_1B_2C_1$ vs$A_2B_1C_1$	26	26	18.88	18.04	1.143	1.076	2.05*
$A_1B_2C_1$vs $A_2B_1C_2$	26	26	18.88	16.04	1.143	1.483	6.31**
$A_1B_1C_1$vs $A_1B_1C_2$	26	26	21.54	18.62	1.581	1.299	6.21**
$A_1B_1C_1$vs $A_1B_2C_1$	26	26	21.54	18.88	1.581	1.143	5.78**
$A_1B_1C_1$vs $A_1B_2C_2$	26	26	21.54	17.08	1.581	1.623	8.92**
$A_1B_1C_2$vs $A_1B_2C_1$	26	26	18.62	18.88	1.299	1.143	.60 (NS)
$A_1B_1C_2$ vs$A_1B_2C_2$	26	26	18.62	17.08	1.299	1.623	3.28**
$A_2B_2C_2$ vs $A_2B_2C_1$	26	26	14.46	18.77	2.017	1.840	8.13**
$A_2B_2C_2$vs $A_2B_1C_2$	26	26	14.46	16.04	2.017	1.483	3.22**
$A_2B_2C_2$vs $A_2B_1C_1$	26	26	14.46	18.04	2.017	1.076	7.95**
$A_2B_2C_1$vs $A_2B_1C_2$	26	26	18.77	16.04	1.840	1.483	5.46**
$A_2B_2C_1$vs $A_2B_1C_1$	26	26	18.77	18.04	1.840	1.076	1.55(NS)

$A_1B_1C_1$vs $A_2B_1C_1$	26	26	21.54	18.04	1.581	1.076	7.78**
$A_1B_1C_1$vs $A_2B_1C_2$	26	26	21.54	16.04	1.581	1.483	11.46**
$A_1B_1C_1$vs $A_2B_2C_1$	26	26	21.54	18.77	1.581	1.840	5.43**
$A_1B_1C_2$vs $A_2B_1C_1$	26	26	18.62	18.04	1.299	1.076	1.35(NS)
$A_1B_1C_2$vs $A_2B_1C_2$	26	26	18.62	16.04	1.299	1.483	5.61**
$A_1B_1C_2$vs $A_2B_2C_2$	26	26	18.62	14.46	1.299	2.017	8.85**
$A_1B_2C_1$vs $A_1B_2C_2$	26	26	18.88	17.08	1.143	1.623	3.91**
$A_1B_2C_1$vs $A_2B_1C_1$	26	26	18.88	18.04	1.143	1.076	2.05*
$A_1B_2C_1$vs $A_2B_2C_1$	26	26	18.88	18.77	1.143	1.840	.23(NS)
$A_1B_2C_1$vs $A_2B_2C_2$	26	26	18.88	14.46	1.143	2.017	9.82**
$A_1B_2C_2$vs $A_2B_1C_2$	26	26	17.08	16.04	1.623	1.483	2.12*
$A_1B_2C_2$vs $A_2B_2C_1$	26	26	17.08	18.77	1.623	1.840	3.31**
$A_1B_2C_2$vs $A_2B_2C_2$	26	26	17.08	14.46	1.623	2.017	5.14**
$A_2B_1C_1$vs $A_2B_1C_2$	26	26	18.04	16.04	1.076	1.483	4.54**

**** = Significant at 0.01 level * = Significant at 0.05 level NS= Not Significant**

A_1: Smart Classroom Teaching A_2: Conventional Teaching

B_1: Urban B_2: Rural

C_1: High Level of Intelligence C_2: Low Level of Intelligence

Findings Of The Study

1. **Main Effect of Method of Teaching, Locality and Intelligence on Achievement.**
   - The findings of the study revealed a significant main effect of method of teaching, locality and intelligence on achievement in Social Science among seventh graders.
2. **Double Interaction Effect of Method of Teaching and Locality; Method of Teaching and Intelligence; and Locality and Intelligence on Achievement.**
   - Method of teaching and locality (A×B) were found to have a significant interaction effect on achievement in Social Science among seventh graders.
   - Interaction effect of method of teaching and intelligence (A×C) was found insignificant on achievement in Social Science among seventh graders.
   - There existed no significant interaction effect of locality and intelligence (B×C) in achievement in Social Science among seventh graders.
3. **Triple Interaction Effect of Method of Teaching, Locality and Intelligence on Achievement.**
   - A significant interaction effect of method of teaching, locality and intelligence (A×B×C) was found on achievement in Social Science among seventh graders.

Educational Implications

The findings of the present study are beneficial for the school authorities, teachers, students and society. Technology has had a major impact on our school systems and is still impacting it today. As so far the present study is concerned, it can be claimed that useful information obtained could be useful in enhancing the achievement of students in Social Science as well in other school subjects. The results of the present study reflect that method of teaching has a significant great effect on students' achievement in Social Science. Smart classroom teaching proved to be better mode of teaching than the conventional teaching in all the content areas i.e. Social Sciences, Chemistry, Biology, Mathematics etc. To increase the effectiveness of teaching Social Science the teacher should make use of computer with possibly latest software (smart classroom packages) so that the students get interested in learning. Learning through such package increases the curiosity and capabilities of the students. Students get benefited from interactive method of teaching than the traditional or conventional teaching. Teaching modern generation would become easy if we intersect subject with technology. Teaching has moved from the monograph to open access, web-based, collaborative and social media outlets. Therefore, teachers should know how to integrate information technology with teaching. But some teachers still are reluctant to use technology, mostly because of a lack of time, a lack of resources, or a lack of confidence in their ability to use the available technology. The principals and managing directors or other higher authorities need to use technology and support the teachers who hesitate about using technology in teaching learning process. Refresher courses, workshops and seminars etc. on the integration of technology in teaching learning must be organised for the professional development of teachers.

References

Adeyemi, B. A. (2012). Effect of computer assisted instruction (CAI) on junior secondary school students' achievement in Social Studies. *Mediterranean Journal of Social Sciences.* 3 (2).

Askoy, G. (2012). The effects of animation technique on the 7th grade Science and Technology Course. *Scientific Research Journal, 3*(3), 304-308.

Bano, N. (2016). Impact of smart classroom learning environment on the performance of first grade students in English. *FUNOON- An International Journal of Multidisplinary Research, 2*(1), 121-128.

Chachra, I. K. (2015). Effect of smart classroom assisted teaching on academic achievement of students of different intelligence level in social science. *Abhinav National Monthly Refereed Journal of Research in Arts and Education, 4*(6), 4-10.

Chandra, R. and Azimmudin, S. (2013). Influence of intelligence and gender on academic achievement of secondary school students of Lucknow city. *IOSR Journal of Humanities and Social Science, 17*(5), 09-14.

Dania, P.O. (2014). Effect of gender on students' academic achievement in secondary school Social Studies. *Journal of Education and Practice, 5*(21), 78-84.

Deary, I. J., Strand, S., Smith, P. and Fernandes, C. (2006). Intelligence and educational achievement. *Intelligence, 35*(1), 13- 21.

Gakhar, S.C. & Aseema (2004). Influence of self-concept, stress, locality and gender on the academic achievement and reasoning ability of adolescents. *Praachi journal of psycho-cultural dimensions, 20*(1), 25- 28.

Ganyaupfu, E.M. (2013). Teaching methods and students' academic performance. *International Journal of Humanities and Social Science Invention,2*(9), 29-35.

Ghetiya, S. M. (2000). A study of effectiveness of sex and methods of teaching on academic achievement for science teaching. *Indian Psychological Review, 54*(1& 2), 40-42.

Kaur, M., Ram Niwas and Rai, V.K. (2015). A study of achievement in relation to sex, habitation and scientific attitude of higher secondary school students. *International Journal of Scientific Research, 4*(7), 167-170.

Krishna, R. D. (2008). *Achievement of X class students in mathematics in relation to certain psycho-sociological variables* (Ph.D. Thesis). Department of Education, S.V.University, Tirupati.

Lindquist, T. M. (1995). Traditional versus contemporary goals and methods in accounting education: Bridging the gap with cooperative learning. *Journal of Education for Business, 70* (5), 278-284.

Mehera, C. (2004). A study on the achievement at the secondary level and some of its determinants. *Educational Abstracts, 5*(1&2), 10-11.

Menon, A. (2015). Effectiveness of smart classroom teaching on the achievement in Chemistry of secondary school students. *American International Journal of Research in Humanities, Arts and Social Sciences, 9*(2), 115-120.

Mittal, A. (2008). Academic achievement of secondary level students in relation to their mental health and locality. *Journal of teacher education and research, Noida, 3*(2), 61-69.

Naderi, H., Abdullah, R., Hamid, T.A., and Sharir, J. (2008). Intelligence and gender as predictors of academic achievement among undergraduate students. *European Journal of Social Science, 7*, 199-200.

Owoeye, J.S. (2011). School location and academic achievement of secondary school in Ekiti State, Nigeria. *Asian Social Science, 7*(5), 170-175.

Panchalingappa, S.R. (2004). Study habits, family climate, adjustment and academic achievement of children of Devadasis. *Quest in Education, 28*(4), 22-23.

Roscigno, V.J. & Crowley, J.L. (2001). Rurality, intuitional disadvantage, and achievement/attainment. *Rural Sociology, 66,* 268-298.

Sekhar, K. (2012). *A diagnostic study of the causes for poor results in some junior colleges in Chittoor district* (Ph.D. Thesis). Department of Education, S.V.University, Tirupati.

Sevindik, T. (2010). Future's learning environment in health education: The effects of smart classrooms on the academic achievement of the students at Health College. *Telematics and Informatics, 27*(3), 314-322.

Siddi, R. S. (2013). Impact of gender and locality on academic achievement of secondary school students in Social Studies. *PARIPEX – Indian Journal of Research, 2*(2), 106-107.

Singh et. al. (2007). Impact of caste sex and habitat on achievement in Mathematics at upper primary school. *Journal of Teacher Education and Research, 2*(2), 23-27.

Tebabal, A. and Kahssay, G. (2011). The effects of student-centred approach in improving students' graphical interpretation skills and conceptual understanding of kinematical motion. *Latin American Journal of Physics Education, 5*(2), 374-381.

Waters, B., Hughes, Forbes and Wilkinson (2006). Comparative academic performance of medical students in rural and urban clinical settings. *Medical Education, 40*(2), 117-120.

Wiggins, G. (1987) Creating a thought - provoking curriculum. *American Educator Winter,* 10-17.