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EFFECT OF METHODS OF TEACHING, CLASS AND THEIR INTERACTION ON LEARNING STYLES OF STUDENTS

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ABSTARCT

The study explores the effect of Smart class on the Academic Achievement of students. The sample consisted of 443 students of Class VI, VII and VIII from two higher secondary schools of Bhilai city, Durg (C.G.). The tool used to collect the data with regard to learning styles is Grasha - Riechmann Student Learning Styles Scale (GRSLSS). The learning styles scale was developed by Grasha, A.F. and Riechmann, S.W (1974) GRSLSS depicts six primary learning styles, which are present in each learner in different degrees. One of the schools followed traditional method of teaching while the teachers of the second school taught students with the help of Smart Class. Scores were analysed to find out the effect of Smart class and Traditional Method of teaching on learning styles of the students.

KEYWORDS

Smart Class, Learning Styles, Grasha-Riechmann Student Learning Styles Scale, Traditional Method, Methods of teaching

RESEARCH PAPER

INTRODUCTION :

The efficiency of the Traditional Method is being questions from time immemorial. Still it is the most prevalent and frequently used method not only in India but abroad too. No other method has been successful in uprooting it. But slowly, technological advancements are invading the arena of education and steadily fixing their foot in Indian classes in the form of Smart Classes. It is a huge risk in adopting methods of teaching developed abroad without validating their efficiency in Indian context with totally contrast situations. The present study is aimed to provide such empirical evidence.

OBJECTIVE:

The objective of the present study was 'to study the effect of Methods of Teaching, Class and their interaction on Learning Styles of Students.'

HYPOTHESIS:

There will be no significant effect of Methods of Teaching, Class and their interaction on Learning Styles of Students.

SAMPLE:

The Random Sampling technique was employed to select two different schools located at Durg district of Chhattisgarh state. Both the schools were affiliated to Board of Secondary Education, New Delhi. One of the schools has adopted Smart Class while the other still follows the Traditional Method. The group-wise, class-wise and gender distribution of the sample has been provided in Table-1.

Table 1: Group, Class and Gender-wise distribution of Sample

Smart Class Group				Traditional Class Group			
Class	M	F	TOTAL	M	F	TOTAL	**Grand Total**
VI	36	33	69	30	32	62	**131**
VII	41	40	81	38	31	69	**150**
VIII	40	50	90	32	40	72	**162**
Grand Total	**117**	**123**	**240**	**100**	**103**	**203**	**443**

TOOL:

The data for the present study was collected with respect of learning styles. The details of the tool employed for the purpose have been provided under the caption Learning Styles.

Learning Styles:

The instrument used to collect the data with regard to learning styles is Grasha -Riechmann Student Learning Styles Scale (GRSLSS) .The learning styles scale was developed by Grasha, A.F .and Riechmann , S.W (1974) GRSLSS depicts six primary learning styles, which are present in each learner in different degrees .These six learning styles are namely Avoidant, Collaborative, Competitive, Dependent, Independent, and Participant .The GRSLSS consists of 60 questions, with ten questions each that are averaged together to measure dominance in one or more of the six measured learning styles .The content validity of GRSLSS was found to be high and reliability as medium by Diaz and Cartnal)1999

DATA ANALYSIS & INERPRETATION:

The data collected were analysed through 2x2 Factorial Design ANOVA followed by 't'-test. The results of the analysis is provided in Table 2.

Table 2: Summary of 2x2 Factorial Design ANOVA for Learning Styles

Source	Type III Sum of Squares	Df	Mean Square	F
Method of Teaching	1637.873	3	545.958	0.770
Classes	9842.443	2	4921.221	6.945**
Method of Teachingx classes	1401.044	2	700.522	0.989
Error	308235.658	435	708.588	
Total	1.647E7	443		

**-significant at 0.01 level

From Table-2, it can be observed that the F-value of 0.770 for methods of teaching (one group taught by Smart classes and other group taught through Traditional Method) is not significant. This reflects that the mean scores of learning styles of the two groups do not differ significantly. Thus, the mean scores of learning styles of the group taught by Smart classes and of the group taught through Traditional Method do not differ significantly. Therefore the null hypothesis stated as 'The mean score of learning styles of the group taught by Smart classes will not differ

significantly from the mean score of learning styles of the group taught through Traditional Method.' is not rejected. It can therefore safely stated that as far as learning styles are concerned, both Smart Classes and Traditional Method are equally effective.

The F-value of 6.945 for Classes is significant at 0.01 level, with df=1\435(vide Table 2). This shows that Classes have a significant influence on learning styles of students. This shows that the learning styles of students studying in VI, VII and VIII Classes differ significantly from each other. Hence the hypothesis stated as 'There will no significant influence of Classes on learning styles of students' is rejected. To find out as to the means of learning styles which classes differed significantly, 't'-test was employed between the means of Classes VI & VII, VII & VIII and VI & VIII respectively. The results of these analyses have been provided under captions 3- 5 respectively.

The F-value of 0.989 for the interaction between methods of teaching and Classes is not significant (vide Table 2). This reflects that the interaction between Groups and Classes does not produce any significant effect on scientific attitude of the students. Therefore the hypothesis stated as 'There will be no significant effect of Interaction of methods of teaching and Classes on Scientific Attitude of the students.' is not rejected.

Effect of Classes VI & VII on Learning Styles:

In order to study the influence of Classes VI & VII on learning styles of students, 't'-test was employed between the mean scores of learning styles of VI & VII class students. The results of the analysis are provided in Table 3.

Table 3 : Class-wise Mean, S.D & 't'-values

Class	N	M	S.D	t-value
VI	131	190.21	30.217	2.12
VII	150	196.13	25.368	

From Table 3 it can be observed that the 't'-value of 2.12 for Learning Styles is not significant. This helps us to infer that the mean of Learning Styles of students studying in Class VI does not differ significantly from the mean of Learning Styles of students studying in Class VII. Thus, the null hypothesis stated as 'The mean of Learning Styles of students studying in Class VI does not differ significantly from the mean of Learning Styles of students studying in Class VII' is not rejected. It can thus be safely concluded that the learning styles of students of Classes VI & VII are more or less similar.

Effect of Classes VII & VIII on Learning Styles:

In order to study the influence of Classes VII & VIII on learning styles of students, 't'-test was employed between the mean scores of learning styles of VII & VIII class students. The results of the analysis are provided in Table 4.

Table 4 : Class-wise Mean, S.D & 't'-values

Class	N	M	S.D	t-value
VII	150	196.13	25.368	3.404**
VIII	162	206.51	28.480	

**- significant at 0.01 level

From Table 4 it can be observed that the 't'-value of 3.404 for Learning Styles is significant at 0.01 level with df = 310. This helps us to infer that the mean of Learning Styles of students studying in Class VII differs significantly from the mean of Learning Styles of students studying in Class VIII. Thus, the null hypothesis stated as 'The mean of Learning Styles of students studying in Class VII does not differ significantly from the mean of Learning Styles of students studying in Class VIII' is rejected. Moreover the mean of learning style of students studying in class VII is 196.13 is significantly lower than the mean of learning styIe of students studying in classVIII (Mean=206.51). It can thus be safely concluded that the learning styles of students of Class VIII are better refined than the learning styles of students of Class VII.

Influence of Classes VI & VIII on Learning Styles:

In order to study the influence of Classes VI & VIII on learning styles of students, 't'-test was employed between the mean scores of learning styles of VI & VIII class students. The results of the analysis are provided in Table 5.

Table 5 : Class-wise Mean, S.D & 't'-values

Class	N	M	S.D	t-value
VI	131	190.21	30.217	4.740**
VIII	162	206.51	28.480	

**- significant at 0.01 level

From Table 5 it can be observed that the 't'-value of 4.740 for Learning Styles is significant at 0.01 level with df = 291. This helps to infer that the mean of Learning Styles of students studying in Class VI differs significantly from the mean of Learning Styles of students studying in Class VIII. Thus, the null hypothesis stated as 'The mean of Learning Styles of students

studying in Class VI does not differ significantly from the mean of Learning Styles of students studying in Class VIII' is rejected. Moreover the mean of learning style of students studying in class VI is 190.21, which is significantly lower than the mean of learning styIe of students studying in class VIII (Mean=206.51). It can thus be safely concluded that the learning styles of students of Class VIII are better refined than the learning styles of students of Class VI.

FINDINGS:

* Both Smart Classes and Traditional Method are equally effective in developing the learning styles.

* The learning styles of students of Classes VI & VII are more or less similar.

* The learning styles of students of Class VIII are better developed than the learning styles of students of Class VI as well as of Class VII.

* The female students possess more refined learning styles as compared to their male counterparts.

CONCLUSION

The present study revealed both Smart Classes and Traditional Method are equally effective in nurturing the learning styles. The result appears to be contrary to the general perception that Smart Class is the panacea for all problems related to teaching- learning process.

The inability or reluctance of the teacher to use the optimum features of Smart Class often relegates the interactive smart board to a 'glorified whiteboard'. This limits the scope of Smart Class from properly accommodating students of various learning styles.

The present study shows that learning styles of students of Classes VI & VII are more or less similar. In addition to this, the present study also revealed that the learning styles of students of Class VIII are refined than the learning styles of students of Class VI as well as of Class VII. Related researches by Borun, Schaller , Chambers , and Allison Bunnell (2010) and Bitran, Zúñiga, Pedrals, Padilla, and Mena (2012) had also pointed towards changes in learning styles of students as they advance in age and class. A smart classroom may enhance today's students' learning styles, but a thoughtfully constructed one can also make life easier for the teachers.

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