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Research Paper - Education

A Study of Effectiveness of Inter Change the Role Model of Teaching Social Science to Class VIII Students : A Case Study from Rohtak, Haryana

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A B S T R A C T

This paper intends to test the efficacy of Inter-Change the Role (ICR) Model of teaching in class-room situations, and makes the best use of students' natural inquisitiveness. For this purpose,a study was being conducted on school students with the objectives to compare effectiveness of ICR Model in teaching social science to Class VIII. Study reveals that ICR Model was more effective in teaching social science to Class VIII students. Model provides significant difference in achievement for students of below average and low level of intelligence, whereas the lecture-cum-power point method do not show the significant difference in achievement.

Introduction

Learning with movies is more facilitating in teaching-learning process. It makes learning come alive through the use of movies. The film provides a valuable media form that can positively contribute to the teaching concepts of diversity. The educators may find that movie implementation aids in facilitating student learning and knowledge retention. The movie provides an opportunity for students to reflect upon the relevant issues. The children take keen interest in the movies. As such, there is need to inter-change the role between teacher and taught in class-room situation. In this Model by watching a movie, all types of learners can be benefited and attended by the teacher in same time and in the same class-room situations. Many researchers have shown results in favor of the teaching by visual and multi-media aids [Anshu (2006), Jyothi (2007), Enigo (1997), Aggarwal & Mohanty (1998), Neera (1998), Swain et. al. (2003)].

In teaching by visual and multi-media type of arrangements, the students are given seats in front of the LCD screen (as smart-rooms are popular and adopted by the most of schools). The teacher is required to sit at the last or back side of the students. The course content materials are shown in the form of a movie or film to the students. The students watch the movie and after the movie ends, the teacher asks the students to frame as many as possible questions as they can think on their own. Subsequently, the students have inter-group and intra-group discussions on their self-made questions and explore to frame more and more (maximum) questions as they can frame. The teacher may help the students in suggesting/ framing the questions. When the framing of question session is over, the teacher guides the students about the sources so that they may prepare the answers by themselves using various sources of information consisting of text-books, help-books, library, internet, visiting public places etc. In this way, the students are requested to bring their work by preparing the power point presentation(s) or project report(s).

Objectives of Study

The present study was conducted with the objectives to (1) compare the effectiveness of ICR Model in teaching social science to Class VIII students with lecture-cum-power-point presentation method, (2) study the effectiveness of teaching by ICR Model on the students having different levels of intelligence (high, above average, average, below, below average), and (3) study the effectiveness of teaching by ICR Model on the students belonging to different socio-economic status.

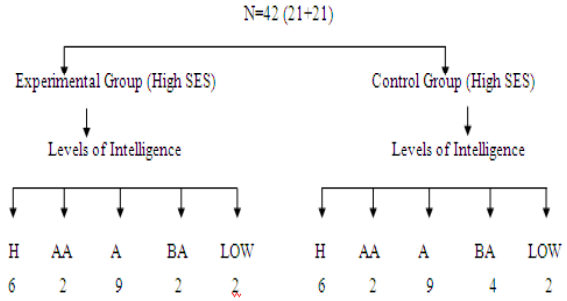
ICR Model (Operational Definition)

The Interchange the Role (ICR) Model: The ICR Model is defined as the set up of class-room situation in which the students are given seats in front and teacher at the back of class. All the students are shown movie on the course contents and are asked to frame as many questions as are possible. The teacher will help the students in finding the answers and solve the problems as a facilitator.

To achieve above-cited objectives of study, the hypotheses in regard to ICR Model are framed, namely, (1) the Model will be more effective in teaching social science to Class VIII students in comparison of teaching by lecture-cum-power point presentation methods, (2) the Model will be more effective in teaching social science to Class VIII students having different levels of intelligence (high, above average, average, below, below average) in comparison to teaching by lecture-cum-power point presentation methods, and (3) the Model will be more effective in teaching social science to Class VIII students belonging to different socio-economic status in comparison to teaching by lecture-cum-power point presentation methods.

Materials & Methods

To achieve the objectives of present study, the students studying in all three sections of Class VIII from Scholars Rosary High School, Rohtak, Haryana had been selected. The students of all three sections of Class VIII were equated on the socio economic status (SES), and test of intelligence was administered exclusively on the students with high SES. Subsequently, five levels of intelligence were formed on the basis of intelligence test scores to make the homogeneous groups. The total number of selected students of high SES was 42 from all three sections of Class VIII, and it constitutes the experimental as well as control group as two factors each having five levels of intelligence, namely, high (12 students), above average (4 students), average (18 students), below average (4 students) and low level (4 students), respectively. The design of this study was used in 2x5 factorial design, and the same is given hereunder for 42 selected students.



Sample Selection

The sample selection was done by adopting two tools, namely, (1) Non-verbal test of intelligence by Sharma (2007) and (2) Socio-Economic Status Scale by Kalia & Sahu (2008). The brief descriptions about these tools are as given hereunder.

Testing Procedures

As discussed in earlier, the students were equated on socio economic status, and five groups were formed on the basis of intelligence test scores to have homogeneous groups as per the design of the study. The step-wise testing procedures is given hereunder:

* A unit from the social science book "Gandhiji's Journey to South Africa" was selected from and the Social science from Class VIII school syllabus.
* A pre-test on content material was prepared by the teachers to administer on both the groups (control and experimental), and their obtained scores were kept in record.
* In addition, a power point presentation of the same content was shown in the film "Gandhi" was prepared by the investigators.
* The controlled group was treated by teaching in lecture-cum-power point presentation methods.
* The experimental group was shown the first part of an academy award winner film made by the Discovery Video & Laser Co. Pvt. Ltd., 4 Mohan Apts., J.P. Road, Versova, Mumbai covering "Gandhiji's Journey to Africa".
* Equal teaching time was given to the both groups (control and experimental).
* As per the operational definition of ICR Model, students were encouraged to frame as many as possible questions as they could think to frame after watching the film.
* The investigators themselves gave teaching treatments to the both groups.
* The students had been given opportunity for inter-group and intra-group discussions to explore more and more questions.
* Subsequently, the teacher suggested to all students about sources from where they could search and obtain the answers of their self framed questions. The students were given homework to prepare a power point presentation or project report on the * Gandhiji's Journey to South Africa".
* A post-test was conducted after one week on the same students, and the data was recorded, processed and analyzed through simple standard statistical techniques.

Results and Discussion

The group-wise (control and experimental) pre-test and post-test means scores with t-values are presented in Table 1. It is evident that the mean score is found higher in case of post-test as compared to pre-test scores in case of control and experimental groups. Besides, Table 1 indicates that mean score in case of post-test for experimental group (16.40) is on the higher side as compared to control group (10.71). This result indicates that there is a significant difference between the control and experimental groups, which is completely validated by the t-test for two sample means, and found significant at one percent of level of significance, and this significance was in favour of the experimental group.

Table 1: Group-wise (Control and Experimental) Pre-test and Post-test Mean Scores with t-values

Groups	N	Pre-test		Post-test	
		Mean Score	t-value	Mean Score	t-value
Control	21	4.95	.058**	10.71	4.65*
Experimental	21	5.00	16.40		

*Significant at 1% of level of significance.

** Non-significant at 1% level of significance.

The group-wise (control and experimental) pre-test and post-test mean scores over different five levels intelligence with t-values is given in Table 2. Table 2 reveals that a significant difference was found

Table 2: Group-wise (Control and Experimental) Pre-test and Post-test Mean Scores Over Different Levels of Intelligence with t-values

Levels of Intelligence	Groups	Pre-test e Mean Scor	Post-test Mean Score	t-value
High	Controlled	5.33	12.33	3.23*
	Experimental	4.50	14.33	3.98*
Above	Controlled	4.50	14.00	19.00*
Average	Experimental	3.50	14.50	15.56*
Average	Controlled	4.44	10.12	3.27*
	Experimental	4.55	17.33	8.73*
Below	Controlled	4.50	6.50	2.82
Average	Experimental	6.50	18.50	7.58*
Low	Controlled	7.00	9.00	0.47
	Experimental	8.50	18.50	6.32*

*Significant at 1% of level of significance.

between the pre-test and post-test mean scores in experimental group for all five levels of intelligence, thereby, depicting significant at 1% level of significance as far as two mean t-test is concerned. In case of control group, the t-test for pre-test and post-test mean scores for high, above average and average levels of intelligence was found significant at 1% level of significance whereas it was not found significant for below average and low levels of intelligence.

It is evident from the above results that ICR Model showed significant achievement in students as basic idea of constructivism is to enhance the students' learning. According to constructivist theory, students were provided opportunities to construct knowledge on their own by self observation. Students' natural inquisitiveness was channelized in inter-group and intra-group discussions. Moreover, children love watching movies and their interest were utilized for the purpose of better learning. All the senses are used to acquire knowledge while content was shown by the movie. This Model showed a significant achievement among all the students of different intelligence levels. In case of below average and low levels of intelligence, the students where lecture-cum-power point methods were not as effective in this method also showed significant results this may be due to the reason that their original thinking was valued and their all the senses were stimulated to learn better.

Conclusions

On the basis of foregoing data analysis and findings, it can be concluded that ICR Model is more effective in teaching social science to Class VIII students for all levels of intelligence. It is also evident from the results that the ICR Model shows significant difference in achievement in case of the students of below average and low level of intelligence where lecture-cum-power point methods did not show significant difference in the achievement, although it is a matter to be testified on the basis of large scale sample surveys.

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