



The Effect Of Using Jigsaw Method In Teaching Commerce For Higher Secondary Level

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Abstract

The study aimed to identify the effect of using Jigsaw method in teaching commerce compared to the traditional way. The study sample consisted of 80 rural and urban students, divided into two groups: experimental and control where the students of the experimental group studied through the Jigsaw strategy and the students of the control group studied the same units in the traditional way. An achievement test was developed in the mentioned units of commerce to measure the extent of the acquisition of scientific concepts, which had sufficient validity and reliability. The test was applied on the study sample and the appropriate statistical analyses were conducted. The results indicated that there was statistically analysis. The researcher recommended the adoption of the teaching method by using the Jigsaw strategy in teaching commerce because of its effect on the acquisition of commerce concepts.

Keywords: Effectiveness, jigsaw method, Higher Secondary level

1. INTRODUCTION:-

Cooperative learning is one of the modern trends in the field of teaching aiming to link learning by doing action and participation of the students; so this method received considerable attention since the eighties of the last century for being used as an alternative to the traditional method which leads to competition among learners rather than the spirit of cooperation. Among cooperative learning methods, the Jigsaw strategy is attractive for teachers, as it seems to be easy to implement and follow its four-step teaching structure; in addition, this method is believed to improve students' socialization and learning. In jigsaw method, the classes are divided into small groups, many members of the group coinciding with the number of problems has to offer teachers, these groups are called to a home group. Each member of the home group was given a different problem, but each home group were given the same question in accordance with the indicators. With a certain time limit of each member of the discussion group completed the problem individually. A home group will split and form a new group that brings the same issues, the group is called expert group. In this group they are talking to the same perception of their answers. After finished, they returned to the home group and its members must socialize the results/answers from the experts through presentations

per group. Discussion with jigsaw method is a development of innovative and cooperative learning in which students are very big role.

2. STATEMENT OF THE PROBLEM:

“The Effect of Using Jigsaw Method In Teaching Commerce For Higher Secondary Level”

3. OPERATIONAL DEFINITION:

Effect: According to C.V.Good dictionary of Education, effect means

- Serving to effect the purpose
- Producing the intended or expected result
- Producing effect
- Reaction, Impression

In the present study ‘effect’ means impact of various strategies of teaching namely jigsaw Method.

Jigsaw Method:

This method lies in organizing students to work in small groups consisting of 5-6 members, and each student is given information that is not given to another in the group making him an expert in the part of the subject after receiving tasks; afterwards, the students are prepared to teach their own subject after being mastered by the students of the groups; then, they are selected and granted degrees or other rewards.

Higher Secondary Level:

Means a school having the distinctive stage of +2 stage under (10+2+3) pattern of education recognized by the Higher Secondary Education Board, Gandhinagar, Gujarat

4. OBJECTIVE OF THE STUDY:-

- To develop a Jigsaw method for teaching selected units of commerce at class XI.
- To study the effect of Teaching method Jigsaw and Conventional on (i) Higher Order Thinking Achievement (ii) Lower Order Thinking Achievement and (iii) Total Achievement in selected units of commerce at class XI.
- To study the effect of teaching method (Jigsaw and Conventional) on Learning Awareness in Commerce of class XI students.

5. VARIABLES OF THE STUDY:-

Following were the Variables of the study.

• Independent Variables:

Teaching approach:

- Jigsaw Method
- Conventional method

• Dependent Variables:

- a. Achievements in selected units of Commerce- (i) Higher Order Thinking (ii) Lower Order Thinking and (iii) Total Achievements.
- b. Learning Awareness.

6. HYPOTHESES OF THE STUDY:-

- Ho1:** Significant difference will not be found between the mean scores of Higher Order Thinking Achievements in selected units of Commerce of class XI urban students learning Commerce through Jigsaw Method and Conventional methods.
- Ho2:** Significant difference will not be found between the mean scores of Lower Order Thinking Achievements in selected units of Commerce of class XI urban students learning Commerce through Jigsaw Method and Conventional methods.
- Ho3:** Significant difference will not be found between the mean scores of Total Achievement in selected units of Commerce of class XI urban students learning Commerce through Jigsaw Method and Conventional methods.
- Ho4:** Significant difference will not be found between the mean scores of Learning Awareness of class XI urban students learning selected units of Commerce through Jigsaw Method and Conventional methods.
- Ho5:** Significant difference will not be found between the mean scores of Higher Order Thinking Achievements in selected units of Commerce of class XI Rural students Learning Commerce through Jigsaw Method and conventional methods.
- Ho6:** Significant difference will not be found between the mean scores of Lower Order Thinking Achievements in selected units of Commerce of class XI Rural students learning Commerce through Jigsaw Method and conventional methods.
- Ho7:** Significant difference will not be found between the mean scores of Total Achievements in selected units of Commerce of class XI rural students learning Commerce through Jigsaw Method and conventional methods.
- Ho8:** Significant difference will not be found interaction effect of teaching methods (Jigsaw Method and Conventional method) and IQ (High and low) on Learning Awareness of class XI rural students.

7. REVIEW OF RELATED LITERATURE

Study – 1 Amedu Odagboyi Isaiah(2015)

Amedu conducted “The effect of Gender on the Achievement of Students in Biology Using the Jigsaw Method.” This paper examined the effect of gender on the Achievement of students in biology using the jigsaw, method. The sample was made up of 87 students in SS! in a secondary school. The study utilized an intact class because the study took place in a normal school term. There were 39 males and 49 females. The Biology Achievement Test (BAT) was constructed from past WAEC questions. These questions are standardized test and so were not subjected to further reliability rest. The students administered the BAT as pretest, and the results were collated by gender. A t-rest analysis showed that significant difference was not found between the mean scores of boys and girls. The class was taught, topics in microorganisms for 12 weeks. The BAT

administered as a posttest at the end of 12 weeks teaching. The results were analyzed using the t-test at 0.05 level of significance, Results showed that there was a significant difference between the mean scores in favor of the males. This showed that the males gained more from the jigsaw method compared with the females. IL was recommended that in order to get the best out of instruction, various methods. or a combination of them must be employed.

Study – 2 Nurbianta Nurbianta, Hana Dahlia(2013)

They conducted “The effectiveness of Jigsaw Method in Improving Students Reading Comprehension.” Reading comprehension is a major objective of language instruction in English Learning concept teaching in senior high school. As one of macro skill of English it is being important part in English Language Teaching, So, the teacher should teach actively to help students get the ultimate goals of reading instruction. Jigsaw is one of cooperative Learning which is interesting to be applied to boost students" Motivation in Learning English especially to reading skill. The activities is centered to the students, so it can stimulated students activeness because they involved in Jigsaw Method based on the tittles, the formulation of the problem was: 1) Is the prepared test curricular valid and reliable?,2) What are the results of pretest and posttest using jigsaw method?. 3) Is there any significant difference result of pretest and posttest using jigsaw method? Design of this research Was pre-experimental design by pretest-posttest one group. Research subject was students in SMPN 13 Berau while object of the research was the use of jigsaw method in reading instruction. The population of this research was 100 students of seventh grade of SMPN 13 Berau, and the sample was 30 students taken by random sampling technique. The instrument was test then analyzed by scoring, normality. homogeneity, mean, t-test and hypothesis testing. The results of this research are: 1) The test instrument used in this research was appropriate in term of the objective and applicable in this particular situation because the prepared test curricular valid and reliable, 2)The result of posttest slightly Higher than pretest in conducted jigsaw method in SMPN 13 Berau, 3) There is significant difference of jigsaw method used that exists on respondents specifically students in SMPN 13 Berau during Learning English as Second Language (ESL) specifically for reading instruction. The hypothesis of this researches accepted because there is significant effect of Jigsaw Method in Improving.

Study – 3 Mark W. Dollard and Kate Mahoney(2010)

They studied “How Effective Is The Jigsaw Method When Used To Introduce New Science Curricula In Middle School Science?” The objectives of this study was to find the effects of the Jigsaw method, a cooperative Learning tool, on content knowledge and attitude toward Learning science. A group of 64 students in an 8th grade physical science class located in rural western New York participated in this study. As an intervention for this action research study, science content was introduced using the Jigsaw method. Research design included a quasi-experimental approach with control group. Methodology included pre and post-

assessments of content knowledge and attitude. In addition, a teacher log was kept of observations throughout the experience. The Achievement gain made by the control and experimental groups was essentially the same and in general, the attitudes towards Learning were Higher using the frontal method. However, the experimental group expressed they felt more important and had more opportunity to participate in class. It is recommended the intervention be repeated with one to two weeks of training students how to use the Jigsaw method before data is collected.

8. RESEARCH METHODOLOGY:-

In the present study the investigator wanted to study the effectiveness of Jigsaw method on the achievement of the students with context to Commerce in controlled classroom situation. Therefore researcher has decided to use Experimental research method for the present study.

1. Population and sample:-

1.1 Population:-

The students of Gujarati medium of standard XI studying the Commerce subject of higher secondary of the school situated into Anand district of the state-Gujarat.

1.2. Sample:

There are total 40 students in Experiment group and same total 40 students in control group in the Urban area and same in the Rural area school.

1.3 Research Method:

In the present study the investigator wanted to study the effectiveness of Jigsaw Method on the achievement of the students with context to Commerce in controlled classroom situation. Therefore researcher has decided to use Experimental research method for the present study.

9. DATA ANALYSIS AND INTERPRETATION:

In the present study investigator has studied the main effect of independent variables

i) Teaching method (Jigsaw Method and conventional) and their interaction effect on Achievement in Commerce-

- Higher Order Thinking Achievement
- Lower Order Thinking Achievement
- Total Achievement and

Learning awareness of class XI students.

Researcher has also decided to study the simple effect of independent variables on dependent variables. Therefore researcher has carried out the experimental study using 2X2 factorial design.

After treatment researcher has administered the Achievement test and learning awareness questionnaire to all the four groups and scores of (i) Higher Order Thinking Achievement ii) Lower Order Thinking Achievement iii) total Achievement and iv) learning awareness were obtained.

For the data analyses researcher has used following statistical techniques.

- i) Descriptive statistics mean, SD were computed for Achievement in Commerce- i) Higher Order Thinking Achievement ii) Lower Order Thinking Achievement iii) total Achievement and iv) learning awareness of all the groups of 2 X 2 factorial design.
- ii) To compare the mean of all the groups, graphs were prepared.
- iii) To study the main effect of independent variables i) Teaching method and their interaction effect on dependent variables – i) Higher Order Thinking Achievement ii) Lower Order Thinking Achievement iii) Total Achievement and iv) Learning awareness researcher has used 2 X 2 factorial Analyses of variance using SPSS programme and hypothesis were tested.
- iv) To study the simple effect of independent variables on dependent variables researcher has used t test and compared all the groups and hypotheses of simple effect were tested.

10 RESULTS:

Results of the present study are given below:-

Results of Experiment – I- (Urban area school)

Results of Main effect of Independent variables and their Interaction effect on Dependent variables:

Hypothesis No.	Independent Variable	Level	Dependent variable	F ratio	Significant
Ho1	Teaching Method	i)Jigsaw Method ii)Conventional	Higher Order Thinking Achievement	18.441	0.01
Ho2	Teaching Method	i)Jigsaw Method ii)Conventional	Lower Order Thinking Achievement	37.513	0.01
Ho3	Teaching Method	i)Jigsaw Method ii)Conventional	Total Achievement	48.074	0.01
Ho4	Teaching Method	i)Jigsaw Method ii)Conventional	Learning awareness	12.36	0.01

Results of Experiment – II- (Rural area school)**Results of Main effect of Independent variables and their Interaction effect on Dependent variables:**

Hypothesis No.	Independent Variable	Level	Dependent variable	F ratio	Significant
Ho5	Teaching Method	i)Jigsaw Method ii)Conventional	Higher Order Thinking Achievement	90.577	0.01
Ho6	Teaching Method	i)Jigsaw Method ii)Conventional	Lower Order Thinking Achievement	71.64	0.01
Ho7	Teaching Method	i)Jigsaw Method ii)Conventional	Total Achievement	193.744	0.01
Ho8	Teaching Method	i)Jigsaw Method ii)Conventional	Learning awareness	11.45	0.01

11. FINDINGS :

1. Jigsaw Method was found more effective than conventional method on Higher Order Thinking Achievement of urban students.
2. Jigsaw Method was found more effective than conventional method on Achievement of Lower Order Thinking Achievement of urban students.
3. Jigsaw Method was found more effective than conventional method on total Achievement in selected units of Commerce of urban students.
4. Jigsaw Method strategies found more effective in the development of learning awareness of urban students than that of conventional method.
5. Jigsaw Method was found more effective than conventional method on Achievement of Higher Order Thinking Achievement of Rural students.
6. Jigsaw Method was found more effective than conventional method on Achievement of Lower Order Thinking Achievement of rural students
7. Jigsaw Method strategies found more effective in the development of learning awareness of rural students than that of conventional method.

11. CONCLUSIONS:

Present study was carried out to study the effectiveness of Jigsaw Method methods in teaching Commerce at class XI. From the results and findings of the study it can be concluded that techniques used in Jigsaw Method was found effective as compare to conventional method of teaching. In Jigsaw Method classroom students academic engagement was found and students were actively participating in teaching learning process. These type of learning content are more useful in teaching learning process for the academic development of the students.

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