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EFFECT OF CONCEPT ATTAINMENT MODEL OF TEACHING ON THE ACHIEVEMENT OF SOCIAL STUDIES OF SECONDARY SCHOOL STUDENTS

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ABSTRACT

The study examined the effect of concept attainment model of teaching on the achievement of social studies of secondary school students. Data was collected by random sampling technique from a sample of 50 students of class ixth of public school of Jagraon. Teacher made achievement test for teaching of social studies concepts was developed by the investigator. The teaching plan and lesson plans were prepared by the investigator with the help of expert teachers. The data were analyzed by employing mean, and *t* ratio. Results show that there exists a significant mean difference in pre-test and post-test of pupil taught through Bruner model.

KEYWORDS: teaching, educational institution, learner, learning experience

INTRODUCTION

Education is influence of the environment upon the individual. Though such influence individual develops these capacities which enable him to control his environment adapt to that environment and to realize and fulfill his responsibilities in a socially desirable manner. Therefore, our societies have provided educational institutions like school to import this much desired service to all the individuals and significantly improve their development patterns from the very childhood. Now how much a student learn and benefits from education is indicated by his achievement and performance in different areas viz, academics, co-curricular etc. Hence achievement and educational institution may be defined as any desirable learning that is observed in the student. Since the word desirable implies a value judgement, it is obvious that a particular learning may be referred to as achievement or otherwise depending on whether it is consider

desirable or not. Therefore, we can say that any behaviour that is learned may come within the scope of achievement.

ACHIEVEMENT

Achievement signifies accomplishment or gain in performance carried out successfully. Achievement is the accomplishment or proficiency of performance in given skill or body of knowledge. Achievement is generally used in the sense of ability to do, capacity to do or tendency to do. It further means the extent to which learner is profiting from instructions in a given area of learning or progress in school. It is the outcome of general and specific learning experience. Achievement thus means all those behavioral changes which take place in an individual as a result of learning experience of various kinds. The place of achievement in studying the individual and giving guidance and counseling him is fully recognized by psychologists and counselors. One of the uses of achievement is to find out whether an

individual has attained the required ability in a given field of knowledge or activity.

Thus it has been observed that without knowledge of an individual's achievement in education and training. It is not possible to understand his problems fully. Achievement has been found useful in remedial teaching programmes as well as in determining the class to which a pupil should be admitted. There are certain pupils who have difficulties in certain subjects and therefore, their achievement scores are low.

THE CONCEPT ATTAINMENT MODEL

The concept attainment model was developed by Joyce and Weil. The term concept attainment model is historically linked with the work of Jerome Bruner and his associates and that is why it is usually named of Bruner's Concept Attainment Model.

According to Bruner (1977) strategy refers to the sequence of decision people make as they encounter each instance of a concept. Strategies of thinking are not always perceived consciously by the person using them, and they do not remain fixed. People use different strategies for different types of concepts. There are ideal strategies having the property of minimizing cognitive strain that one must encounter enroute to a solution. Bruner et al (1977) state "There are also ideal compromise strategies that serves both the purpose of cognitive economy and rapid solution." There are six strategies to learn the concept. These six strategies are classified under two broad categories that is 'selection' and 'reception' strategies. Selection strategies are used when the teacher is free to choose concept instance (examples and non-exemplars) in order to test the hypothesis about concept. With the reception strategies the learner's major area of freedom is in the hypothesis he chooses to adopt, not in the manner in which we can choose instance to test.

NEED AND IMPORTANCE

There is need to adopt some teaching strategies to develop the learner, physically, mentally, socially, morally and aesthetically. A teacher by virtue of his ideal position, status, knowledge and experience, influence the behaviour of the less experienced pupils and helps them to develop according to their needs, abilities and capacities. The teacher should teach the subject matter in a such a way so that it could be retained for a longer time in the minds of the learner.

There is need to know how to modify student behaviour so that they function effectively in a changing society. To carry out multiple society. To carry out multiple responsibilities the teacher are required to engage in several professional rolls.

STATEMENT OF THE PROBLEM

EFFECT OF CONCEPT ATTAINMENT MODEL OF TEACHING ON THE ACHIEVEMENT OF SOCIAL STUDIES OF SECONDARY SCHOOL STUDENTS

OBJECTIVES OF THE STUDY

The study has been carried out with the following objectives.

1. To develop lesson plans to teach social studies by using concept attainment model.
2. To apply the Bruner's Concept attainment model on teaching social studies concepts to class IX students.
3. To compare the Achievement of students in social studies taught with Bruner's Concept Attainment Model and Traditional Method of Teaching.
4. To compare the effectiveness of concept attainment Model on social studies Achievement of boys and girls.

HYPOTHESES OF THE STUDY

The main hypotheses of the present study were :-

1. There exist no significant mean differences in the pre-test achievement of students of both groups.
2. There exists a significant difference in the post-test achievement of students of both groups.
3. There exists a significant mean difference in pre-test and post-test of pupil taught through Bruner Model.
4. There is significant mean difference in the pre and post test of pupil taught through traditional method.
5. There is no significant difference in the girls and boys taught through concept attainment model.
6. There is no significant difference in the girls and boys taught through traditional method.

SAMPLE OF STUDY

Sample for the present study will comprise of 50 students of class IXth of Public School of Jagraon. The sample will include both girls and boys.

TOOLS OF STUDY

For the collection the data following tools were used:

Teacher made achievement test for teaching of Social Studies concepts was developed by the investigator. The teaching plan and lesson plans were prepared by the investigator with the help of expert teachers.

STATISTICAL TECHNIQUES

In order to test the hypothesis formulated for the present study and to arrive at some solid conclusions the score subjected to statistical analysis and interpretation. The following statistical techniques were use to analyze the data.

- Mean, S.D., was calculated.
- 't'-ratio was calculated to know the mean differences.
- Graphical representation was done where ever necessary.

DELIMITATIONS

1. The sample of present study was delimited to a selective public school of District Ludhiana due to requirement of the design of the study.
2. The present study was delimited to class IXth students.
3. In Burner's model only the reception oriented strategy concept was used in present study.
4. The study was delimited to concept of freedoms movement of India.

ANALYSIS AND INTERPRETATION OF DATA

Hypotheses-1. There exist no significant mean differences in the pre-test achievement of students of both groups.

Table -1 Data and results of the test of significant of the difference between the pre-test scores of experimental and control groups.

Variables	Control Group				Experimental Group				't'-Value	Level of significant
	M ₁	N ₁	SD ₁	SE _{D1}	M ₂	N ₂	SD ₂	SE _{D2}		
Pre-test Results	11.4	20	5.29	1.68	14.35	20	5.37	1.68	1.75	No significant difference

Table -1 shows that there is no significant difference in the mean scores of pre test of experimental and control groups. It can be seen from table-1 that the mean scores of control group is 11.4 and experimental of group is 14.35. The SD of both groups are 5.29 and 5.37 respectively. The calculated t-value is 1.75, the tabulated t-value at 0.01 level and 0.05 level are 2.02 and 2.48 respectively. Since the calculated value at the both

the level of significant. So the value is non-significant at 0.01 level and 0.05 level of significant. This indicate that there is no significance difference.

Hence, Hypotheses 1 "There exist no significant mean differences in the pre-test achievement of students of both groups" stands accepted.

Hypothesis 2 : There exists a significant difference in the post-test achievement of students of both groups.

Table 4.2 Data and results of the test of significant of the difference between the post-test scores of experimental and control groups.

Variables	Control Group				Experimental Group				't'-Value	Level of significant
	M ₁	N ₁	SD ₁	SE _{D1}	M ₂	N ₂	SD ₂	SE _{D2}		
Post-test Results	24.1	20	7.19	2.17	29.7	20	6.57	2.17	2.58	Significant difference

Table 4.2 shows that there is significant difference in the mean scores of post-test of experimental and control groups. It can be seen from table 1.3 that the mean scores of control group is 24.1 and experimental of group is 29.7. The SD of both groups are 7.19 and 6.57 respectively. The calculated t-value is 2.58, the tabulated t-value at 0.01 level and 0.05 level are 2.02 and 2.48

respectively. Since the calculated value at the both the level of significant. So the value is significant at 0.01 level and 0.05 level of significant. This indicate that there is significance difference.

Hence, Hypothesis 2 "There exist significant mean differences in the post-test achievement of students of both groups" stands accepted.

Hypotheses 3: There exists a significant mean difference in pre-test and post-test of pupil taught through Bruner Model.

Table 4.3 Data and results of the test of significant of the difference between the pre-test and post-test of experimental group.

Variables	Pre-test				Post-test				't'-Value	Level of significant
	M ₁	N ₁	SD ₁	SE _{D1}	M ₂	N ₂	SD ₂	SE _{D2}		
Experimental Group	14.35	20	5.53	1.91	29.7	20	6.57	1.91	8.03	Significant difference

Table 4.3 shows that there is significant difference in the mean scores of pre-test and post-test of experimental group. It can be seen from table 1.4

that the mean scores of pre-test is 14.35 and post-test is 29.7. The SD of both groups are 5.53 and 6.57 respectively. The calculated t-value is 8.03, the

tabulated t-value at 0.01 level and 0.05 level are 2.02 and 2.48 respectively. Since the calculated value at the both the level of significant. So the value is significant at 0.01 level and 0.05 level of significant. This indicates that there is significance difference.

Hence, Hypotheses 3 "There exist significant mean differences in the pre-test and post-test of pupil taught through Bruner Model." stands accepted.

Hypothesis 4 : There is significant mean difference in the pre and post test of pupil taught through traditional method.

Table 4.4 Data and results of the test of significant of the difference between the pre-test and post-test of control group.

Variables	Pre-test				Post-test				't'-Value	Level of significant
	M ₁	N ₁	SD ₁	SE _{D1}	M ₂	N ₂	SD ₂	SE _{D2}		
Control Group	11.4	20	5.29	1.99	24.1	20	7.19	1.99	6.38	Significant difference

Tabel 4.4 shows that there is significant difference in the mean scores of pre test and post-test groups. It can be seen from table 1.5 that the mean scores of pre-test is 11.4 and post-test is 24.1. The SD of both groups are 5.29 and 7.19 respectively. The calculated t-value is 6.38, the tabulated t-value at 0.01 level and 0.05 level are 2.02 and 2.48 respectively. Since the calculated value at the both

the level of significant. So the value is significant at 0.01 level and 0.05 level of significant. This indicates that there is significance difference.

Hence, Hypotheses 4 "There exist significant mean differences in the pre-test and post-test pupil taught through traditional method" stands accepted.

Hypothesis 5 : There is no significant difference in the girls and boys taught through concept attainment model.

Table 4.5 Data and results of the test of significant of the difference between mean score of boys and girls of experimental group.

Variables	Boys				Girls				't'-Value	Level of significant
	M ₁	N ₁	SD ₁	SE _{D1}	M ₂	N ₂	SD ₂	SE _{D2}		
Experimental group	28.7	10	6.67	2.98	30.7	10	6.67	2.98	0.67	Non-Significant difference

Table 4.5 shows that there is no significant difference in the mean scores of boys and girls of experimental groups. It can be seen from table 1.6 that the mean scores of boys is 28.7 and girls is 30.7. The SD of both groups are 6.67. The calculated t-value is 0.67, the tabulated t-value at 0.01 level and 0.05 level are 2.09 and 2.84 respectively. Since the

calculated value at the both the level of non-significant. So the value is non-significant at 0.01 level and 0.05 level of significant. This indicate that there is no significance difference.

Hence, Hypotheses 5 "There exist non-significant mean differences in the pre-test and post-test pupil taught through traditional method" stands accepted.

Hypothesis 6 : There is no significant difference in the girls and boys taught through traditional method.

Table 4.6 Data and results of the test of significant of the difference between the boys and girls of control group.

Variables	Boys				Girls				't'-Value	Level of significant
	M ₁	N ₁	SD ₁	SE _{D1}	M ₂	N ₂	SD ₂	SE _{D2}		
control group	20.8	10	6.51	2.91	27.4	10	6.51	2.91	0.68	Non-Significant difference

Table 4.6 shows that there is no significant difference in the mean scores of boys and girls of control groups. It can be seen from table 1.7 that the mean scores of boys is 20.8 and girls is 27.4. The SD of both groups are 6.51. The calculated t-value is

0.68, the tabulated t-value at 0.01 level and 0.05 level are 2.09 and 2.84 respectively. Since the calculated value at the both the level of non-significant. So the value is non-significant at 0.01 level and 0.05 level

of significant. This indicate that there is no significance difference.

Hence, Hypotheses 6 "There exist non-significant mean differences in the boys and girls taught through traditional method" stands accepted.

FINDING OF THE STUDY

On the basis of results obtained during the course of investigation the following findings have been drawn

1. In the study it was found that no significant mean differences in the pre-test achievement of students of both groups.
2. In the study it was found that significant mean differences in the post-test achievement of students of both groups.
3. In the study it was that found significant mean differences in the pre-test and post-test of pupil taught through Bruner Model (Experimental Group).
4. In the study it was that found significant mean differences in the pre-test and post-test pupil taught through traditional method (Control Group).
5. It was found that non-significant mean differences in the boys and girls pre-test and post-test pupil taught through Bruner Model.
6. It was found that non-significant mean differences in the boys and girls taught through traditional method.

CONCLUSION

On the basis of analysis and interpretation of the data. The major objective was to find out the effectiveness of concept attainment model over the traditional method on achievement of social study of secondary school students. The present study was revealed the superiority of concept attainment model of teaching over the traditional method of teaching.

EDUCATIONAL IMPLICATIONS

- The study reveals that the concept attainment model of teaching is effective for the proper understanding and clarification of concept. Even through the investigation is carried out on a small sample; the findings throw light on the current educational practices in secondary classes.
- By adopting the Bruner Model of teaching in the classroom, the teacher can develop an easy method of attaining concepts, which seem to be not so difficult apparently, may not be that easy in reality; therefore learning experiences have to be selected in such a way as to reinforce and develop the deeper meanings of the ideas to be learned.
- Commitment to use the concept attainment model requires teachers to understand the theory and nature of concepts.

- The concept attainment model offers teachers a method for teaching thinking across the curriculum using the subject matter of the discipline which they teach.
- It is a model which helps teachers broaden their own, holistic understanding of their discipline as ways of thinking about the world, and helps them consider which concepts in the discipline students most need to understand in order to use the knowledge and skills the discipline encompasses.
- The model strengthens teachers own subject-area knowledge and critical thinking skills by engaging them in opportunities to create realistic exemplars that reflect the concept and in doing so, helps them understand the thinking process students need to use as in order to derive the concept.
- It provides teachers with opportunities to help students apply the concepts and critical thinking skills they learn in the class room and beyond.

SUGGESTION FOR FURTHER STUDY

Generally studies in models of teaching have been confined to the information processing only. The purpose of education is not only to develop the cognitive domain. Hence, such studies need to be taken up that can develop both affective and psychomotor domains. For such studies other family of models via social interaction models, personal model, behavioural modification models should also be taken up for research and experimentation.

The present investigation is tried to find out the effectiveness of concept attainment model of instruction over conventional teaching method in terms of the scores achieved by student in social and in cognitive ability, while assessing the effectiveness of the method of teaching, the teacher also may be taken as a reference factor, form this angle the suggestions are :-

1. The present study is conducted only on senior secondary school students. It may be conducted on primary and college level students also.
2. The present study is conducted on small sample (N=40). It may be repeated on large sample.
3. For the present study sample was drawn from school of Jagraon only. The similar study may be extended to state and national level to make the results more valid and reliable.
4. The present study is conducted on private senior secondary school students. It may be conducted on Govt. senior secondary students also.
5. The similar study may be taken on other method of teaching.

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