

Effect of concept attainment model in learning social science, an experimental study on 9th standard students

O. K. PRAVEEN

Assistant professor, department of history,
Sree Kerala Varma college, Thrissur
Email - okpraveen2773@gmail.com

Abstract: *Concept attainment model has been developed, based upon the studies made by Jerome.S.Bruner and his associates Jacqueline Good now and George Austihn, mainly about the nature of concept and the strategies of concepts formation. Concepts are the key building blocks for the structure of significance of the various academic disciplines. The theoretical significance of cognitive concept in psychological theory parallels the seminal role of valence in chemistry and give in biology or energy in Physics. Concepts are the distillate of sensory experiences and the vital link between external inputs and overt behavior. They are vehicles of thought. They are the critical components of an individual's cognitive structure. Concept attainment model has been designed to enrich the students on specific concepts and by the nature of concepts. They also provide practice in inductive reasoning and opportunities for altering and improving student's concept building strategies.*

Key Words: *concept Attainment Model, social science, pre test , post test, teaching, learning*

1. INTRODUCTION:

In concept learning new information is frequently linked to relevant aspects of an individual's existing cognitive structure. This process of linking new information to per existing segments of cognitive structure is referred to a "subsumption". Since, cognitive structure itself tends to be hierarchically organized with respect to level of abstraction, generally, inclusiveness of ideas the emergence of new propositional meaning most typically reflects a subordinate relationship of the new material to existing cognitive structure. This involves subsumption of potentially meaningful propositions under more inclusive and general ideas in existing cognitive structure and in turn results in hierarchical organization of cognitive structure. The efficiency of subsumptive ideas is themselves adequately established in cognitive structure. Learning is an important process that develops a man's attitude and so it is the hands of the teacher. The teacher can only make learning easier and effective. To make it possible teacher has to use different methods, models and experiments for teaching.

Experts in the field of education all over the world are seriously thinking of a variety of approaches to teaching to achieve different instructional objectives; Experience has shown that there is no one particular way which can be said to be the approach to achieve any instructional object. Therefore we may require a number of ways to create the right environment for learning.

To provide all round development we need to design suitable instructional strategies which help students grow emotionally, physically, socially and intellectually. We need to know how to modify their behaviour, so that the function effectively in a changing society. To carry out these multiple responsibilities, the teachers are required to engage in several professional roles. Models of teaching consist of guidelines for designing educational activities and environments. In this teaching are meant for creating environment. They provide specifications for constructing learning situations. Models of teaching are a plan that can also be utilized to shape courses of studies to design instructional materials to guide instruction.

Concept attainment model has a rationale that justifies it and describes what is good and why. Models link different skills of teaching of theory. This model helps students to develop and form new concepts with the help of teacher students analyze their strategies in thinking.

The new curriculum developments in social science emphasize the teaching of social science based on Concept attainment model. Concept attainment model is more concerned with students discovering how scientists come to know what they know major conventional methods like, Lecture method, Lecture cum Demonstration method and Test book method have their own significance in the teaching of social science.

In Concept attainment model the problem posed by the teacher is carefully designed to motivate the students. Another distinguishing characteristic of this model is that students gather information in a stimulated process through questioning rather than actual manipulation of information. In addition it differs from the other models in that it is more process oriented and more emphasize therefore is on content.

- Experimental research is used to determine and evaluate the adequacy and effectiveness of the educational and instructional objectives through the measurement of their outcomes. After evaluating the efficiency of objectives, the suggestions are made by the formulation, execution, and modification of educational

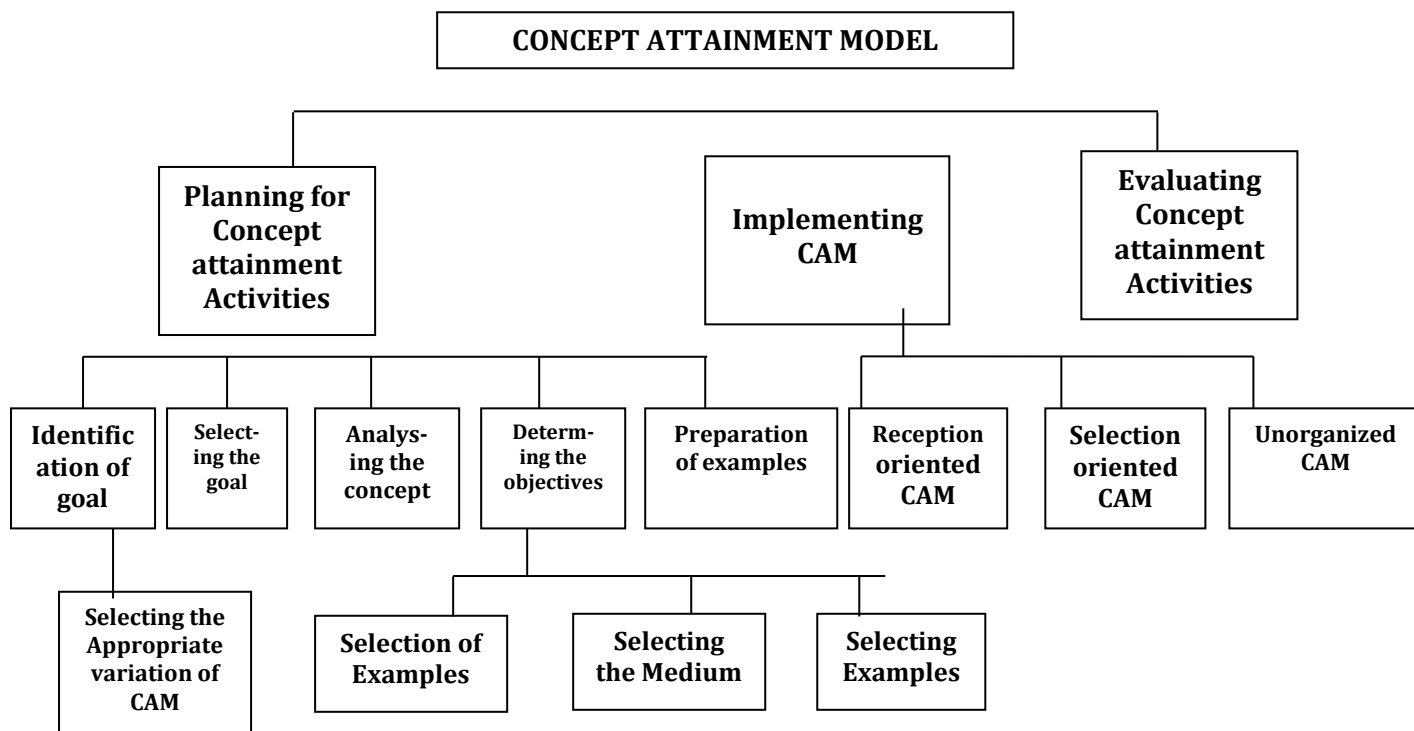
programmes and classroom practices. The classroom teacher uses experimentation to evaluate the effectiveness of certain learning experiences, planned and organized, to achieve some desired objectives. Effectiveness of teaching methods and innovations in the evaluation techniques is also ascertained through experimental research.

• **Meaning and importance of concepts:-**

Economizing human effort to cope up with the millions of different objects and other phenomena presented by the environment is essential. This is because it will be difficult to register the differences in things and to avoid this, we categorise. This is seen in our endeavour to consider different things or phenomena as unique items but as members of classes and we form categories that lead to the formulation of concepts. By this process environment becomes simpler and within our grasp. This, concepts form the basic vocabulary of the language of a subject of specialization.

According to Bruner [1960], “Concept Attainment refers to; the process of finding predicative defining attribute that distinguishes examples from non-example”

AN OUTLINE OF CONCEPT ATTAINMENT MODEL



• **The process of concept attainment and concept formation:**

To combine apparently different and unique items into classes, we have to think of certain criteria that unite them together and ignore the difference that separate them. This process is categorizing the strategies used for categorizing as done by different people may differ; concept attainment and concept formation are two such strategies.

For example, suppose a learner is given the opportunity to observe closely a collection of objects or phenomena and encouraged to pay attention to their attributes or characteristics, gradually he may develop the ability to categorize or classify those members or items that satisfy a set of common attributes. If this is done correctly he may be able to decide whether any item shown or seen can be included in that set. In other words he will be able to say ‘yes’ or ‘no’ about the inclusion of an item to the category. When he is able to give his own examples from the environment he can be said to have ‘attained’ the concept representing that essential criteria. This process is known as ‘concept attainment’. At the end of this, the learner will also be able to define the concept on the basis of the essential attributes.

In the second strategy known as concept formation, the concept has to be formed by the learner himself. Here, he observes items in natural situations on his own. He forms his own hypothesis and does the categorization or generalization himself. In one sense, this stage is involved in concept attainment also. Only the first step in concept formation namely observing and comparing items and forming hypothesis is done in concept attainment with the help of somebody who guides his thought process along correct lines. In concept formation, a learner makes as many classes as he could imagine from among a pool of items. Then each group is defined in terms of cues or attributes with the help of the teacher.

According to Bruner, a concept includes five elements; they are,

- Name

- Exemplars [Positive and Negative]
- Attributed [Essential and Nonessential]
- Attribute values and
- Rule

- **Name:**

Name is the word that describes a concept for communication. Eg. Cheque, commercial transaction balance sheet, war, democracy, state etc...

- **Exemplars:-**

Exemplars are instances or items that could be used in the process of categorization. These may include items that are positive examples that obey all the essential cues used for categorization leading to the concept as well as negative items that do not satisfy all the cues of a positive example, but are needed for making the grouping meaningful and definite. The latter is called negative examples or non exemplars. These too are essential because the ability to distinguish positive exemplars definitely is developed only by comparison with related negative examples or non-exemplar. For example, to make the concept of planet clear, stars may be presented as negative exemplars.

Application of concept attainment model:

- The use of the Concept attainment model determines the shape of particular learning activities.
- The Concept attainment model may be used with children of all ages and grade levels.
- As with all models, we encourage teachers to take the essence of this model and incorporate its features into their natural teaching styles and forms.
- The Concept attainment model is an excellent evaluation tool when teachers want to determine whether important ideas introduced earlier have been mastered. It quickly reveals the depth of students understanding and reinforces their previous knowledge.
- The model can also be useful in opening up a new conceptual area by initiating a sequence of individual or group inquiries.
- The Concept attainment model can not only introduce extended series of inquiries into important areas, but it can also argument on going inductive study.
- Concept attainment Lessons providing important concepts in Social Science Units – concepts such a democracy, socialism, capitalism etc...

Social science

Social science is a subject of study at the secondary school level which offers a systematic study of man in relation to his society. Social science is quite important because it is an unending dialogue between past and present where by an analysis is made, on the basis of which we can mould a better future.

James High, defines, "Social science as those bodies of learning and study which recognize the simultaneous and mutual action of physical and non-physical stimuli which produce social reaction".

Charles Becards perception regarding, it is: social sciences are a body of knowledge and thought pertaining to human affairs".

Perhaps classification for social sciences given by James High will give us a precise picture of this conception. They are, History (man's story), Anthropology [man's ethos], Geography [man's abode], Political Science [man's order], Sociology [man's association] Economics [man's subsistence] and psychology [man's behaviour].

Characteristics of social science:-

- A unique combination of various disciplines
- A study of human relationship.
- A study of man's development through ages.
- Aim sat preparing the leaner for whole some social living.
- A realistic course of study.
- It forms an important part of core curriculum
- It includes commitment to action.

2. REVIEW OF RELATED LITERATURES:

2.1 Importance of related literature

Review of related literature is a very important aspect of a research project. For any worthwhile study the research worker needs an adequate familiarity with the work which has already been done in the area of his/ her

choice. He has to build upon the accumulated and recorded knowledge of the past. "A familiarity with the literature in any problem area helps the researcher to discover what is already known, what others have attempted to find out, what methods of attack have been promising or disappointing and what problems remain to be studied" [Best, 1978].

A good research work cannot deny of the importance of related literature. It helps the researcher to understand the research works already done related to the topic in depth or in a wider angle. A researcher must draw maximum benefit from the previous investigation. The review of literature promotes a greater understanding of the problem and ensures the avoidance of unnecessary duplication and gives more accuracy, perfection and originality to the research work. Hence review of related literature serves the following useful purposes:-

- To delimit and define the research problem.
- To find out new approaches to the problem.
- To avoid sterile approaches.
- To get an insight into the methodologies used in the evolution of research.
- To frame hypothesis of our studies and to locate comparative data to enable interpretation of our findings.
- To help in framing the objectives of the study.
- To avoid unintentional duplication of well established findings.
- To know about the recommendation of previous researches for further research.

Therefore, an attempt has been made to review the literature and studies which are related to the topic under investigation.

2.2 Studies reviewed:-

The critical review of related studies is categorized into two sectors

- Review of Indian studies
- Review of studies Abroad

2.3 Studies in India

Anu J Preetha (2007) conducted the effectiveness of Concept attainment model in teaching English at high school level.

Objectives

1. To determine the effectiveness of Concept attainment model in teaching English in total sample
2. To determine the effectiveness of Concept attainment model in teaching sex base.

Method

The study was conducted on a sample of 62 student of std IX of Evans H S Parassala, TVPM, experimental method was adopted.

Findings

The study concluded that teaching of Concept attainment model is more effective than traditional method for the achievement in English.

Thomas (2005) conducted the effectiveness of Concept attainment model and test book method in Chemistry at H S level.

Objectives

To determine the effectiveness of Concept attainment model in learning Chemistry in total sample

Method

The study was conducted on a sample of 110 students of STD XI of three division in Govt. H S S Karapusha Kottayam, experimental method was used.

Findings

The study concluded that teaching through Concept attainment model is more effective than text book method for the achievement of Chemistry.

Antonym (2001) compared the effectiveness of Concept attainment model and active teaching model on Maths achievement at secondary level.

Objectives

1. To determine the effectiveness of Concept attainment model in achievement in Maths.
2. To compare the effectiveness of Concept attainment model in achievement in mathematics based on sex.

Method

The study was conducted on a sample of 80 students of std VIII of two divisions in S H C G H S S Chalakudy, Trissure; experimental method was adopted.

Findings

The study concluded that active teaching model of instruction is more effective than Concept attainment model on the achievement in Mathematics.

Mathew (1999) studied the comparative effectiveness of Advanced Organiser Model and Concept attainment model in the teaching of population education at secondary level.

Objectives

To compare the effectiveness of AOM and Concept attainment model in the teaching of H S level.

Method

The study was conducted on a sample of 90 students from IX STD, divided into three groups; experimental method was adopted.

Findings

The findings show that AOM and Concept attainment model is superior to traditional methods of teaching

Bijumole (1997) conducted a study on the effectiveness of Concept attainment model in teaching of Biology to std VIII students.

Objective

To determine the effectiveness of Concept attainment model in teaching Biology.

Method

The investigator adopted a experimental method; sample consisted of 50 students divided into two groups.

Findings

The study revealed that Concept attainment model is more effective than traditional method in teaching biology to high school students.

Gangrade (1997) made a comparative study on the achievement of class VIII, science taught combination of Concept attainment model and lecture method.

Objective

To compare effectiveness of Concept attainment model and traditional method in teaching science for the total same.

Method

The investigator adopted experimental method, 104 sample sizes. Intelligence test, achievement test, and attitude scale was used.

Findings

The study conducted that the Concept attainment model was significantly superior to traditional method of teaching in science to STD VIII students.

Jayasree (1992) conducted a study on the effectiveness of Concept attainment model in teaching mathematics.

Objectives

To determine the effectiveness of Concept attainment model in teaching mathematics.

Method

The investigator adopted experimental method, 80 students of two divisions of std VIII were selected from Auaneeswaram, H S Kollam District.

Findings

The findings indicated that Concept attainment model is superior to traditional method in teaching of concepts in mathematics.

Kumari (1990) investigated the feasibility of Concept attainment model in teaching geography to blind and normal students in the U P.

Objective

To compare the effectiveness of Concept attainment model in teaching geography to blind and normal childrens.

Method

Experimental cum survey method were adopted, interview to teachers teaching blind students and 10 teachers teaching normal students. Sample size is 100.

Findings

Concept attainment model is more effective in two groups of students.

Zacharaah (1989) assessed the effectiveness of Concept attainment model in teaching of economics on STD

Objective

To determine the effectiveness of Concept attainment model in teaching economics.

Method

Experimental method was adopted, sample size is 104 students of VIII std of TVPM District.

Findings

The study was concluded Concept attainment model is more effective than traditional method in teaching of economics.

Panni (1988) compare concept attainment model of groups through reception and selection strategies of Concept attainment model.

Objective

To determine the effectiveness of the Concept attainment model in selection of strategies.

Method

Experimental method was adopted, the sample consisted of 30 students of class VIII in Gramin Jiwan Jyoti School at Rao.

Finding

The study was concluded reception and selection strategies were equally effective in attaining science concepts.

Agarwal and Misra (1988) made an attempt to investigate the effectiveness of reception Concept attainment model of teaching and enhancing attainment of science concepts.

Objectives

To determine the effectiveness of Concept attainment model in teaching science concepts.

Method

Experimental method was adopted, the sample for 36 girls studying in class VIII of govt. girls intermediate college Allahabad. Randomized control group was used for the study.

Findings

The major conclusion of study is that the reception Concept attainment model is an effective in science concepts.

Sushama (1987) studied the effectiveness of Concept attainment model, the effect of Biological science; inquiry model and Traditional Method.

Objectives

To compare the effectiveness of Concept attainment model and traditional method of teaching biology for total sample. To compare the effectiveness of Concept attainment model and inquiry model teaching biology for total sample.

Method

Experimental method adopted sample 102 girls of class VIII of cewntral Hindu Girls School at Banaras.

Findings

The study was found that Concept attainment model was effective for teaching biological science and inquiry model (BSM).

Antimadas (1986) developed the model competency of pre-service teacher trainers by adopting Concept attainment model with three different training strategies.

Method

The sample consisted of 55 B.Ed. students of educational department Devi Ahilya Vishwavidyalaya, Indore, experimental method was adopted.

Findings

The study was found that the three different training strategies were equally effective in terms of the model competency of teacher trainers.

Bihari C (1986) studied the effectiveness of three training strategies in learning Concept attainment model on terms of teaching competency of student teachers.

Objective

To determine the teaching competency of student teachers in terms of coaching through the Concept attainment model.

Method

The sample consisted of 55 B.Ed. students of educational department, Indore. Theory check up and oral teaching analysis guide were used.

Findings

The findings showed that the three training strategies were equally effective for developing teaching competency.

Hence the present investigator made an Experimental Study to find out the effectiveness of Concept attainment model in teaching social science.

3. OBJECTIVES OF THE STUDY:

The following objectives were set for the study:-

- To determine the effectiveness of Bruner's concept attainment model in teaching Social Science.
- To compare the effectiveness of Bruner's concept attainment model and traditional method in teaching social science for the total sample.
- To compare the effectiveness of concept attainment model and traditional method in teaching Social Science among boys.
- To compare the effectiveness of concept attainment model and traditional method in teaching Social Science among girls.

4. HYPOTHESIS:

- There will be framed significant difference between the effectiveness two methods.
- There will be framed significant difference between in the effectiveness of concept attainment model in teaching social science for the total sample.
- There will be framed significant difference between the effectiveness of concept attainment model and traditional method in teaching social science among boys.
- There will be framed significant difference between the effectiveness of concept attainment model and traditional method in teaching social science among girls.

Descriptive statistics

In the present day, two equated groups, an experimental group comprising of 30 students and as control group comprising of 30 students were subjected to a pre-test and post-test to measure their achievement and their scores were subjected to descriptive data analysis. Descriptive analysis included the calculation of mean and standard deviation.

Descriptive analysis reveals important characteristics of the data like range, central tendency and variability. It is concerned with ways of efficiency describing populations. Descriptive statistics analysis, however, limits generalization to the particular group of individual observed. No conditions are extended beyond this group, and any similarity to these outside the group cannot be assumed.

Inferential statistics

Inferential statistics analysis involves the process of sampling and the selection of a small group that is assumed to be related to the population from which it is drawn. Drawing conclusions about applications based upon observation of samples is the purpose of inferential analysis.

In present study the purpose of inferential statistics was to study the significance of difference between means of experimental group and control group on the pre-test and post-test.

Distribution of sample for the group

Sl. No.	Type	Total No. of Students
1	Experimental group	30
2	Control group	30

The total pretest and posttest scores of experimental group and control group

Sl.No.	Pretest		Post test	
	Experimental group	Control group	Experimental group	Control group
1	11	11	21	16
2	12	8	20	14

3	10	12	20	17
4	13	9	23	12
5	8	10	22	11
6	9	11	21	13
7	11	10	22	15
8	10	11	20	15
9	8	13	19	17
10	11	7	24	13
11	7	8	22	12
12	10	10	19	18
13	11	11	22	18
14	12	12	20	19
15	13	13	24	20
16	8	10	19	17
17	10	10	23	14
18	9	12	19	16
19	13	8	25	13
20	11	11	23	14
21	11	9	24	11
22	12	12	23	14
23	10	13	24	17
24	16	11	25	15
25	13	16	25	16
26	8	11	18	18
27	11	8	24	12
28	9	9	18	14
29	12	13	24	19
30	13	13	23	1

Pupil's performance in the achievement test

Before the experiment:

Before starting the experiment same achievement test was administrated to both the experimental and control groups. The pre-test scores obtained by the pupils in both the groups were tabulated

For the obtained pre test scores of the control group and experimental group mean standard deviation were calculated. The values of various statistical calculations are given in the following tables. Comparison of achievement under Bruners concept attainment model and traditional method in teaching social science at pre test level.

Comparison of achievement under CAM in teaching and traditional method at pre test level for total sample.

Method	Mean	SD	N	T	P
Bruners	10.8	1.9	30	0.2	0.843
Traditional	10.7	2.0	30		

The values obtained indicated that the pupils in control and experimental group did not achieve high in the pre-test, also there is no significance difference between control group and experimental group at pre test level.

After the experiment

A post-test was administered to both the experimental and control groups to measure the achievement after experiment.

The post test scores obtained for the control group and experimental group were classified and calculated the mean and standard deviation. The values of various statistical calculations are given in the following tables.

Comparison of achievement under CAM in teaching and traditional method at post test level for total sample.

Method	Mean	SD	N	t	p
Bruners	21.9	2.2	30	10.6**	0.000
Traditional	15.3	2.6	30		

The achievement in social science at pre test and post level is 10.8 and 21.9 respectively. This is statistically significant at 0.01 level. Thus it can be inferred that the method of Bruner’s concept attainment model significantly increases the achievement of student in social science and hence this method is effective.

Comparison of effectiveness of Bruner’s concept attainment model in teaching and traditional method in teaching Social Science for total sample

Null Hypothesis: There exist no significant difference between Concept Attainment Model and Traditional Method in teaching Social Science for the total sample.

Comparison of achievement under Concept attainment model and traditional method of teaching social science for total sample (ANCOVA).

	Mean			Sum of Squares	df	Mean Square	F
	Bruner’s	Traditional					
Pre-test (X)	10.8	10.7	Between Groups	0.2	1	0.2	0.04
			Within Groups	220.0	58	3.8	
			Total	220.2	59		
Post-test (Y)	21.9	15.3	Between Groups	646.8	1	646.8	112.4**
			Within Groups	333.8	58	5.8	
			Total	980.6	59		
Adjusted Post-test (Y.X)	21.8	15.3	Between Groups	630.6	1	630.6	188.97**
			Within Groups	190.2	57	3.3	

Note:- **: significant at 0.01 level

Analysis of covariance (ANCOVA) is used to determine whether the groups differ in average achievement at posttest level as a result of the methods of teaching applied.

A preliminary analysis of variance (ANOVA) carried out for pre test and post test taken separately. The average achievement at pre test level is 10.8 and 10.7 respectively for students in the experimental and control group. The F test applied to the initial achievement score ($F_x = 0.04$) shows that there no significant difference in achievement between the groups at pre test level. The F statistics for the final score ($F_y = 112.4$) is significant even at 0.01 level of significance, means that the average achievement of experimental (21.9) group is significantly above that of control group (15.3) at post test level.

After correcting the final achievement for difference in initial scores, F statistics applied to the final score. The value of the ANCOVA ($F_{y.x} = 188.97$) is significant at 0.01 levels. From $F_{y.x}$, it is clear that the final average score on achievement, after adjusted for the initial difference in experimental group (21.8) is significantly differ from that in the control group (15.3). So it can be concluded that the Bruner’s concept attainment model is statistically effective than the traditional method in teaching social science.

Hence the null hypothesis is rejected

Comparison of effectiveness of Concept attainment model and traditional method of teaching for boys.

Null Hypothesis: There exist no significant difference between Concept Attainment Model and Traditional Method in teaching Social Science for boys.

Comparison of effectiveness of Concept attainment model and traditional method of teaching for boys.

	Mean			Sum of Squares	df	Mean Square	F
	Bruner’s	Traditional					
Pre-test (X)	11.1	11.1	Between Groups	0.1	1	0.1	0.04
			Within Groups	85.3	28	3.0	
			Total	85.5	29		
Post-test (Y)	22.5	15.3	Between Groups	264.0	1	264.0	50.54**
			Within Groups	146.3	28	5.2	
			Total	410.3	29		
Adjusted Post-test (Y.X)	21.2	15.4	Between Groups	254.7	1	254.7	70.92**
			Within Groups	97.0	27	3.6	

Note:- **: significant at 0.01 level

A preliminary analysis of variance (ANOVA) carried out for pre test and post test taken separately. The average achievement at pre test level is 11.1 and 11.1 respectively for students in the experimental and control group for boys. The F test applied to the initial achievement score ($F_x = 0.04$) shows that there no significant difference in achievement between the groups at pre test level. The F statistics for the final score ($F_y = 50.54$) is significant even at 0.01 level of significance, means that the average achievement of experimental (22.5) group is significantly above that of control group (15.4) at post test level.

After correcting the final achievement for difference in initial scores, F statistics applied to the final score. The value of the ANCOVA ($F_{y.x} = 70.92$) is significant at 0.01 levels. From $F_{y.x}$, it is clear that the final average score on achievement, after adjusted for the initial difference in experimental group (21.2) is significantly differ from that in the control group (15.4). So it can be concluded that the Bruner's concept attainment model is statistically effective than the traditional method in teaching social science for boys. Hence null hypothesis is rejected.

Comparison of effectiveness of Bruner's concept attainment model and traditional method in teaching social science for girls.

Null Hypothesis: There exists no significant difference between Concept Attainment Model and Traditional Method in teaching Social Science for girls.

Comparison of achievement under both method of teaching - Analysis of Covariance (ANCOVA) table for girls.

	Mean			Sum of Squares	df	Mean Square	F
	Bruner's	Tradit- ional					
Pre-test (X)	11.1	11.1	Between Groups	0.0	1	0.0	0.01
			Within Groups	128.7	28	4.6	
			Total	128.7	29		
Post-test (Y)	22.5	15.3	Between Groups	388.8	1	388.8	61.62**
			Within Groups	176.7	28	6.3	
			Total	565.5	29		
Adjusted Post-test (Y.X)	22.4	15.3	Between Groups	382.7	1	382.7	119.66**
			Within Groups	86.3	27	3.2	

Note:-**: significant at 0.01 level

A preliminary analysis of variance (ANOVA) carried out for pre test and post test taken separately. The average achievement at pre test level is 11.1 and 11.1 respectively for students in the experimental and control group for boys. The F test applied to the initial achievement score ($F_x = 0.01$) shows that there no significant difference in achievement between the groups at pre test level. The F statistics for the final score ($F_y = 61.62$) is significant even at 0.01 level of significance, means that the average achievement of experimental (22.5) group is significantly above that of control group (15.3) at post test level.

After correcting the final achievement for difference in initial scores, F statistics applied to the final score. The value of the ANCOVA ($F_{y.x} = 119.66$) is significant at 0.01 levels. From $F_{y.x}$, it is clear that the final average score on achievement, after adjusted for the initial difference in experimental group (21.4) is significantly differ from that in the control group (15.3). So it can be concluded that the Bruner's concept attainment model is statistically effective than the traditional method in teaching social science for girls. Hence the null hypothesis is rejected.

5. MAJOR FINDINGS, CONCLUSION, IMPLICATIONS AND SUGGESTIONS:

This study is an attempt to examine thoroughly the effect of Concept Attainment Model in teaching social science in ninth Standard students.

Experimental method was adopted in the study. A sample of 60 students who were studying in the class of Standard IXth P.P.M.H.S.Karakonam was selected .The present study compares two groups of subjects .In one of which the experimental treatment namely Concept attainment model procedure I to be employed where as in the other traditional method is to be followed.

Two equivalent groups are randomly selected among IXth standard students on the basis of their age, sex and their achievement mid in term examination.

The tools used in the study were general data sheet, Achievement test in Social Science and Lesson plan based on Concept attainment model and traditional method.

The general data sheet was used for collecting information regarding name, age, sex, locality, type of institution.

Achievement test is constructed and it is used for both pretest and post test consists of 25 objective type questions.

The investigator prepared teaching manual based on Concept attainment model and teaching manual based on traditional method for the same lesson.

Achievement test consists of 3 sections. They are objective type, short answer type and essay type. Total marks are 25.

After collecting the data, they were subjected to different types of statistical treatments like Mean, standard deviation, t-test, ANOVA and ANCOVA.

6. CONCLUSION:

From the present investigation on the basis of the findings we can conclude that the concept attainment model as a teaching strategy is more effective than the traditional method in fostering conceptual learning efficiency in social science. Concept attainment model is more effective than traditional method in teaching social science. It is more effective than traditional method in teaching among boys concept attainment model is more effective than traditional method in teaching social science among girls.

The present curriculums for schools and B. Ed. Can be altered so that the use of concept attainment model can be brought to practice. Due to this the present generation would be able to understand the concept that they have to learn in their day to day life. This study is from general to specific.

7. SUGGESTIONS FOR FURTHER RESEARCH:

The present study is a limited one due to the lack of time at the disposal of the investigator. It is not a comprehensive study as many desirable areas have been left out. It requires modifications by further researches. Therefore, the researcher offers the following suggestions for active consideration of the workers in the field.

- Larger samples can be taken for a longer time to confirm the results of the present study.
- A comparative study of concept attainment model and TM special variable, different types of schools i.e. govt, private and aided schools considered separately.
- Effectiveness of concept attainment model can be studied in comparison to other models of teaching.
- The effectiveness of model has been tested with the use of only one topic of the IXth STD more topics can be added for accurate results.
- Similar studies can be under taken at other levels namely primary, middle and higher secondary level.
- The study may be repeated to a larger sample, in order to examine the reliability of result.
- Experimentation can be conducted in other school subjects also.
- A survey of attitude of teachers towards concept attainment model in its actual application and effects may be conducted.
- The effect of concept attainment model in teaching Geography; an experimental study on difference level may also be conducted.

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