

**A Study of the Effectiveness of Inductive Thinking Model For Development  
of Conceptual Competence in Degrees of Comparison  
in English Grammar Among IX Standard Students**

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**Abstract-**

*A Model of teaching provides guidelines for designing educational activities and environment. Models of teaching are divided from personals, group dynamics academic and psychological information processing stances, behavior modification etc. Models of teaching have given functional and structural guidelines to design instructions or instructional material. They are dynamically interactive with social and cognitive purpose with the learning theory underling procedures, with available support technology and with personal and intellectual characteristics of the learners. This study was undertaken to see whether the Inductive Teaching of English Grammar concept of Degrees of Comparison by using group work technique (Inductive Thinking Model) has a positive effect on the academic achievement of secondary school students. Hence researcher used Inductive Thinking Model for teaching Degrees of Comparison in English grammar to the ix standard students. Researcher found that Inductive Thinking Model is effective for conceptual competence in Degrees of comparison. There is the significant difference between the mean performance of the students from control group and experimental group in the test on Degrees of comparison*

**Introduction :-**

The use of different models in language teaching has a large impact on students abilities in learning process. Teaching language by using models becomes more effective as the students progress becomes forever. The effects of various models of teaching in languages is important to achieve the specific objectives towards which are directed and also it increase the ability to learn. The models teaching in language learning enhances the ability of students to achieve various learning objectives. Thus, the use of models of teaching in Degrees of Comparison la change students learning strategies increases and student will be able to accomplish more and more types of learning more effectively..

**Inductive Thinking Model- Hilda Taba**

Taba's approach to design of teaching strategies to develop creativity and autonomous thinking has a wide range of applicability. Recent studies have shown that thinking can be learnt developmentally. Teaching strategy that helps the student to higher level of thinking.

Inductive Thinking Model includes following strategies and abilities.

- I Concept Formation
- II Interpretation of Data
- III Application of Generalizations

**1.Objectives of The Study**

- 1.To study the effectiveness of Inductive Thinking Model for conceptual competence in Degrees of Comparison.
- 2.To study the effectiveness of Inductive Thinking Model for conceptual competence in Identification of Degree.

**2 Variables in The Study :** Variables considered in the study are three types -

**1. Independent variables**

The researcher used Inductive Thinking Model for the following variables

1. Grammar concepts – The Pattern of sentence,
2. Lesson plans based on Inductive Thinking Model.
3. Instructional materials – Power Point Slides, Tables, Charts.

**2. Dependent Variables**

Students achievement in conceptual competence in Pattern of sentences,.

**3. Attribute Variables**

Chronological age, sex, physical condition, previous achievement and study habits.

**Delimitations of The Study :** The present study is delimited to -

1. The population of the sample was the students in IX standard.
2. The study was restricted only to the selected concept of Pattern of sentences,. in English grammar of IX standard English text book.
3. The findings of the study would be applicable only for models of teaching related to information processing family.

**3 Hypotheses of The Study**

1. There is no significant difference between the mean performance of the students from control group and Experimental group on Cumulative Test on Degrees of Comparison.
2. There is no significant difference between the mean performance of the students from the Experimental group and Control group in the test on Identification of Degree.

**4. The Plan And Procedure of The Study**

**Sample and Sampling Process**

In the present study purposive sampling procedure was used. The researcher selected the sample from the population of Annasaheb Kalyanai Vidyalaya, Satara, run by Rayat Shikshan Sanstha, Satara. It has six divisions for IX Standard. There were in all 362 students in these divisions. From these divisions four divisions were selected randomly. Out of 257 students first unwilling students were dropped at the beginning, remaining students were enlisted according to their previous years academic achievement i.e. viii. All the students were put in descending order. Every third number in the list was selected as a sample for the study. Out of 200, 60 students were finally fixed for the study. The percentage of the sample size was 30.

**Sampling Procedure**

In order to make two equivalent groups, the researcher constructed the achievement test (Diagnostic Test) of forty marks based on their previous knowledge about conceptual competence in written English grammar and also considered their last year achievement in English. The test was conducted under the supervision of the researcher.

The scores obtained from the test and their previous achievement were put together and put in descending order. He assigned the subjects one by one and obtained two groups. The scores obtained by the students of both the groups were further analysed and interpreted.

**5 Research Tools :** For the present study the researcher used following research tools -

- 1 A Questionnaire for Secondary School Teachers of English.
- 2 A Questionnaire for IX Standard Students.

- 3 The Comprehensive Diagnostic Test.
- 4 Lesson plans based on Inductive Thinking Model.
- 5 Inductive Thinking Model lesson Observation Tag.
- 6 Pre and Post Tests for Assessing conceptual competence in written English Grammar.

### 6 Research Design

In the present study researcher had selected Pre-test-Post-test Equivalent Group Design. Pre-tests and post-tests were administered to find out the effectiveness of Inductive Thinking Model for students conceptual competence in written English grammar.

### 7 Research Data Collection

Researcher collected the data after standardization of tools. Pre-tests, Post-tests and Comprehensive test were administered to IX standard students of Annasaheb Kalyani Vidyalaya, Satara in order to study the effectiveness of Inductive Thinking Model. Researcher used Questionnaires for both Secondary School teachers of English and IX Standard students for collecting data.

### 8 Analysis of Data

Descriptive Statistics of data collected from Diagnostic tests, pre-tests, post-tests, Comprehensive test and Retention test of Control group and Experimental group were computed by using mean, SD and 't' test. Significance of the hypothesis was found by using 't' test.

#### Hypothesis - 1

There is no significant difference between the mean performance of the students from control group and Experimental group on Cumulative Test on Degrees of Comparison.

#### Objective - 1

To study the effectiveness of Inductive Thinking Model for conceptual competence in Degrees of Comparison.

**Table - 1**  
**Means, Sd's And 'T' Value of Both The Groups**  
**in Cumulative Test on Degrees of Comparison**

Group	N	Means	SDs	df	Calculated 't' value	Level of significance
Control	30	6.25	15.98	58	8.52	0.01
Experimental	30	12.23	15.69			

S = Highly Significant

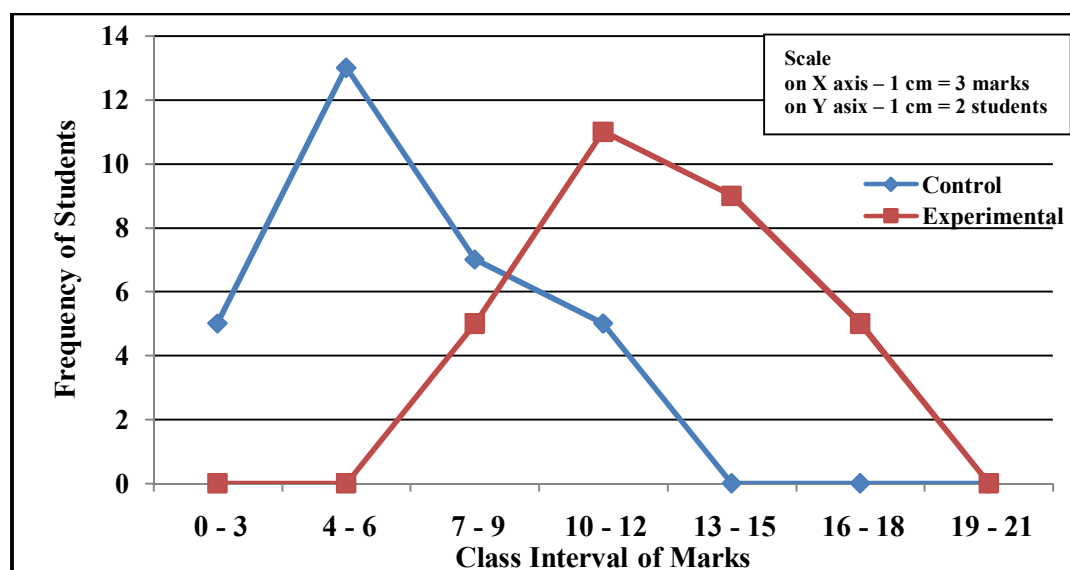
#### Observations and Interpretations

As the evident from the above table the means of both the groups are different. The difference is 5.98. The SDs of both groups are different. The difference is 0.29. In order to know the significance between the two groups 't' value is calculated. The 't' value is 6.45. It is significant at 0.01 level.

Hence, the Hypothesis No. 1 was rejected at 0.01 level.

In order to have the concrete idea, it is presented graphically in Fig. No. 1





**Figure No. 1**

**GRAPH OF SCORES OBTAINED BY CONTROL GROUP AND EXPERIMENTAL GROUP ON CUMULATIVE TEST IN DEGREES OF COMPARISON**

In the Fig. No. 1 the graph shows that the range of marks obtained by Experimental group is between 4 – 6 to 19 – 21. But that of Control group is between 0 – 3 to 13 – 15. The graph of Experimental group is completely shifted towards right side that of Control group.

**9. Major Conclusions of the Study**

After testing the hypotheses obtained conclusions are as given below.

1. Inductive Thinking Model is effective for conceptual competence in Degrees of comparison.
2. There is the significant difference between the mean performance of the students from control group and experimental group in the test on Degrees of comparison.
3. The difference is 6.2 and calculated 't' value is 6.45 which is significant at 0.01 level.
4. It is found that the students from experimental group proved highly effective than the control group (traditional way of teaching grammar) for forming the concepts, listing and categorizing the examples related to the Degrees of comparison.
5. Students from experimental group very easily predicated the consequences and identified the critical relationships among the different sets of examples related to the Degrees of comparison.
6. It is found that the use of supporting material produced great effect to the students from experimental group in order to make inferences and verify the predications regarding the Degrees of comparison.

**10. References**

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