



USAGE OF DEDUCTIVE AND INDUCTIVE METHODS IN TEACHING ENGLISH GRAMMAR AT ELEMENTARY LEVEL

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Abstract

The present study aimed to find out the usage of Inductive and Deductive Method in teaching English Grammar at Elementary Level. The data was collected from 100 teachers of Mohali district in Punjab by using a questionnaire. Findings indicated that teachers tend to teach through Inductive Method more than the Deductive Method. A significant difference is found in the extent use of both the methods. As the Mean value of lessons taught through Inductive Method is higher, it can be said that teachers tend to teach through Inductive Method more than Deductive Method.

Key words: Deductive and Inductive Method, English Grammar



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Introduction

Language is one of the various criteria that distinguishes man from other lower animals. One cannot think of human society without language. It is the language which helps man to express his feelings, emotions, joys and sorrows. Different people in different countries make use of different languages. But among all these languages, the position of English language remains unique. English is the most widely spoken language of the world. It plays a vital role in producing and promoting changes and accepting new trends in the society. Majority of the standard journals and magazines are published in English. English generates modernity, imparts new knowledge and skills, and provides a formal system of living which is found in the advanced countries of the world. By ignoring this language, no nation can prosper and move shoulder to shoulder with the rest of the world. It is the language of the world in all fields such as arts, sciences, humanities, social sciences, international trade and commerce. India is trying to maintain a good foreign policy. For all this, there is a need of a common language i.e. English. English is a language having an international status that can provide the best medium to interact with the outside world.

Role of Grammar in English Language

In spite of many popular statements and realisations, the reach of English language among the students is still a big problem. Except a few brilliant students from very popular and established institutions, the standard of English in our students is extremely poor and not encouraging. Majority of Indian students find themselves incapable of expressing their thoughts in English. They lack fluency in the language. It is also found that the pupils can neither speak simple day-to-day English nor understand simple English spoken by an educated Indian English speaker. There may be many reasons for that but one main reason is that English grammar is not given due importance in classroom teaching from the elementary level. Thus there is no doubt that the knowledge of grammar helps in writing correct English.

Methods of Teaching Grammar

In spite of many methods teachers resort to methods their teachers used decades ago, they teach the English language and literature in English in the same way their teachers did because they had acquired theories with very little practical teaching during their training. Following are some of the methods of teaching grammar:

1) Traditional Method

This method make use of text books to teach grammatical rules. The teacher explains the rules with examples from the text books. Later exercises are given to test the knowledge of the students . However this method doesnot follow the maxims of teaching that is to proceed from known to unknown , simple to complex etc.

2) Incidental Method

It is also known as correlation method. As the name depicts grammar is taught incidentally by relating to the texts books, translation and composition.

3) Informal Method

In this method grammar is taught with the help of usage and not by rules.Hence, this method can also be used with the beginners.

4) Deductive Method

Deductive Method means to proceed from rules to examples. In this method rules are first taught to the student and the examples are given afterwards.

5) Inductive Method

In Inductive Method, Examples are first given and rules are inferred later from those examples. This method gives students opportunity to work on their own.

REVIEW OF RELATED LITERATURE

It is observed from the review that studies have usually implied both these methods to compare the relative effectiveness. Myers (1968) in his study has found out that whether teacher attitudes were potent factors in learning situations and if pupils achieve at relatively higher rates in situations where teachers personalities are compatible with the dominant mode of teaching expected of them. The specified modes of instruction being considered were Inductive vs. Deductive approaches. The material used to test the hypothesis was on Anthropology Curriculum Project (ACP) materials- one set using the deductive mode given to the experimental group and a second set written in an inductive mode given to the experimental group. Thirty teachers and their classes in seven school districts in five states comprised the sample. The major findings of the study indicated that there were no significant differences in achievement between the pupil teachers who taught deductively and those who taught inductively, and that several teachers attitude patterns seem to relate to pupil achievement.

In studying the effectiveness of inductive versus deductive teaching approaches in helping high school second language (French or Spanish) students understand grammatical concepts Shaffer (1989) found that there were no significant differences between the two approaches, dispelling the long- held bias against Inductive Methods.

Ronald (1996) compared the results of the adult learning of English as a Foreign Language (EFL) using an inductive approach as opposed to a deductive one based on explicit contrastive analysis (CA) input. It is suggested that a deductive approach that uses CA input in EFL teaching and learning materials is more effective in minimizing error rates.

Marilyn (1999) found that students who received inductive feedback changed their largest percent of errors when given oral feedback and the students who received deductive feedback changed their smallest number of errors when given oral feedback.

Yuruk (2000) compared the effectiveness of inductive (part –to –whole) and deductive (whole –to- part) content sequences on students of chemistry their achievement, attitude toward chemistry and academic self- concept. Sixty two freshman students from a general chemistry course participated in this study. He found that students exposed to inductive content sequence achieved better than students exposed to deductive content sequence on essay type test when their science process skills, attitude towards chemistry and academic self -concepts before the treatment and pre- achievement were statistically controlled. However, there was no significant difference on their attitudes towards chemistry, academic self –

concepts, short answer test achievement and multiple choice test achievement after the treatment when the above stated confounding variables were statistically controlled.

The comparative effectiveness of teaching English grammar with help of textbook (Deductive Method) and by using group work activities (Inductive teaching model) was studied by Aisha (2002). The study also attempted to see which of these two methods had a positive effect on the academic achievement of the elementary and secondary school students in Pakistan. Of the four 9th grade sections, two sections were randomly selected by the process of simple random sampling using draw method technique. Similar process was adopted in the case of 6th grade students. Then of the two selected groups at each level, one group was randomly assigned as the experimental and other as the control group. Similarly two teachers almost similar in respect of educational qualifications, age, training, teaching experience at the secondary level, socio-economic status and their reputation at the school were selected at the secondary level. One teacher was randomly assigned to the experimental and other to the control group. Similar procedure was adopted at the elementary level. The experimental group at each stage was taught English grammar through group work activities by using the inductive teaching model whereas the control group was taught English grammar through the textbook using the Deductive Method (traditional method).

At the end of the treatment period in the above study, relevant post-tests were administered to the students of the both groups at each stage and were scored. The main findings of the study were that the experimental and the control groups at the both the elementary and secondary stage were equivalent at the time of starting the experiment and the teaching of English grammar through the group work activities (inductive approach) played a positive role in improving the academic achievement of the students studying English at the elementary as well as the secondary stage.

Molly (2004) studied the effects of inductive and deductive teaching method, students' cognitive and affective characteristics and learning style on students' performance. Performance is measured by the scores on tests based on trade concepts and exercises in an introductory course in agricultural economics. Results suggested that inductive teaching increases students performance and that the learning is enhanced if inductive teaching is done prior to presenting general theories.

Naashia (2004) determined learners attitudes to learning grammar through the use of two types of consciousness - raising tasks. A deductive task provided explicit explanations of a grammar structure, while an inductive task required learners to discover the grammar rules for themselves. The study investigated learners preferences relating to deductive and

inductive tasks and aimed to provide a learner perspective of the effectiveness of such tasks. The results indicated that learners viewed both task types to be useful and there was no obvious preference for one task type over the other.

Adel and Abu (2008) investigated the effects of inductive and deductive method and the interaction between “the type of teaching approach” and “the use of the active and passive voice sentences” in English as a foreign language (EFL). Ninety-three freshman and junior university students participated in this study. They were chosen randomly from three classes in two universities in Jordan. The method of the study included a pre-test, two lessons for each group in the three classes and a post test. The results of the study reveal a significant statistical result at level of 0.05 between the two approaches for the deductive group.

As could be seen from the discussion of the studies above, no clear results could be established whether the inductive approach is better than the deductive, or vice versa, or whether they actually have a difference when compared with the language skills of the learners. There are studies which revealed that there is no significant difference in the effectiveness of both methods (Naashia 2004, Shaffer 1989, Myers 1968) which means both are equally effective. Some studies indicated that Inductive Method (Marilyn1999, Yuruk 2000, Prince and Felder 2006,Aisha 2002,Molly 2004) is a better method but there are studies which states the effectiveness of Inductive Method but the same study also indicates that for the present perfect tense, Inductive Method is not very effective. However, the study also shows that both methods are effective in teaching English verb tenses. The studies by Shaffer (1989) and Naashia Mohamed (2004) compared the effectiveness of inductive versus deductive teaching approaches and found no significant differences between the two approaches, dispelling the long-held bias against Inductive Methods.

SIGNIFICANCE OF THE STUDY

In spite of the fact that English is such an important language it is generally seen that the teaching of grammar to elementary school students is narrow one and defective in methodology. The importance of the present study could be seen in view of the prospective teachers who may be given practice in using the more effective method along with the other methods of teaching English. The findings of the study can be used by the curriculum planners and curriculum developers in suggesting the given method for effective teaching in English language. It is expected that the study will bring out the results that will help the teachers and practitioners in education to decide and adopt suitable strategies in teaching of English grammar.

OBJECTIVES OF THE STUDY

- 1) To identify the level of use of Deductive method by the elementary school teachers.
- 2) To identify the level of use of Inductive method by the elementary school teachers.

HYPOTHESES

- 1) Teachers tend to teach English Grammar through both Inductive and Deductive Methods according to their convenience.
- 2) There is no significant difference in the extent use of Inductive and Deductive Methods by Elementary School Teachers in teaching of English grammar.

Sample

The study included 100 teachers of Mohali district. Out of three main regions of Mohali district (Derrabassi, Kharar, Banur) two regions were selected through Lottery Method. Thus Simple Random Technique has been used to select the teachers for the study.

Statistical Technique

The collected data were analysed to find out the extent of use of both methods by teachers. The scores were subjected to 't-test analysis'. Also, to determine use of both methods, percentage was calculated.

Tools used for the study

The present study required a questionnaire. As there was absence of any such standardized tool, the investigator developed the tools herself. The following tool was used in the study:

- A) Questionnaire for English Teachers at the Elementary Level.

Results and Discussions

The primary purpose of the study was to find out the usage of the Inductive and Deductive Methods in teaching English grammar at elementary level. A questionnaire pertaining to use of the methods and an achievement test pertaining to effectiveness of the methods, were administered to collect information from the subjects of the study. The data was analysed statistically to interpret and draw the conclusions keeping in mind the objectives and hypotheses of the study. The results of the study have been presented through following sub-headings:

1.1 Profile of English Teachers at Elementary Level

1.2 Use of Inductive and Deductive Methods in Teaching English Grammar

1.1 Profile of English Teachers at Elementary Level

Part A of Questionnaire was concerned with assessing the profile of the teachers. As the numbers of respondents in the study was 100, the number of responses to a particular variable and the percentage of responses for that variable remain the same. In order to avoid

redundancy or repetition in presentation, only the number has been indicated in each case, which can also be treated as percentage.

Table 1.1.1: Qualification of Elementary School English Teachers

Qualification	Number of Teachers
B.A, M.A	14
B.A, B.Ed	54
M.A, B.Ed	20
M.A, M.ed/Others	12
Total	100

It may be observed from the table above that a sizeable number of English teachers (14%) still remain untrained, that too in English teaching which requires special skills in teaching a foreign language. Fifty four percent are B.A, B.Ed and 20% are M.A, B.Ed. There are 12% teachers who are highly qualified (M.A, M.Ed /others).

The experience of a teacher is equally important as his/her qualifications. The range of experience held by the English teachers is given below:

Table 1.1.2: Experience of the English Teachers

Experience (in Years)	Number of Teachers
0-3	17
4-6	40
7-9	24
10 and above	19
Total	100

As far as experience is concerned 17% teachers have an experience of 0 to 3 years, but most of the teachers i.e. 40% have an experience of 4 to 6 years and 24% are teaching for about 7 to 9 years. No doubt there are few teachers who are not very experienced but 19% teachers had spent 10 years in teaching. Thus the teachers who are teaching English are quite experienced. As an overall assessment it can be concluded that most of the English teachers in elementary schools are experienced ones.

Teaching of English holds an important place in our school curriculum. The views expressed by the English teachers in Punjab are given below:

Table 1.1.3: Status of English Teaching in Punjab

Status of English Teaching	Number of Responses
Satisfactory	12
Not Satisfactory	77
No Response	14
Total	100

Majority of teachers, that is 77%, felt that position of English Teaching in Punjab is not satisfactory. They believed that a lot can be done to improve teaching conditions such as in-service training for teachers, extra coaching for weak students, creating healthy environment in school – both for teachers and students, making teachers free from overloaded work and maintenance of proper infrastructure. Moreover residential schools can also be started. It is a

fact that one learns English through practice only as far as possible parents should also be encouraged to speak in English with their child. There are still 12% who felt satisfied with the position of English in Punjab whereas 14% teachers give no response.

1.2 Use of Inductive and Deductive Methods in Teaching English Grammar

The objectives of the study were to identify the level of use of Deductive Method and Inductive Method by the elementary school teachers. To explore the use of Inductive and Deductive Methods in teaching of English grammar, it was important to know in detail about teaching different parts of grammar through both methods. Also, the perception of teachers towards importance of methodology and views regarding the difficulty level in teaching grammar was taken with the help of a questionnaire.

Table 1.2.1: Role of Methodology in Teach Teaching English Grammar

Teacher's Response	Number of Responses
Plays an important role	96
Plays negligent role	4
Total	100

Method is a way of doing something in a systematic way. It implies an orderly logical arrangement. It is very important in doing anything and in teaching also. This was also felt by 96% of the elementary teachers. Thus majority of teachers felt that methodology plays an important role in Teaching English grammar.

Teaching of English Grammar involves great skill and competence on the part of teacher. The views expressed by the teachers about the difficulty level felt by them in teaching English grammar are given below:

Table 1.2.2: Difficulty Level of English Grammar Teaching

Teacher's Response	Number of Responses
Difficult	34
Moderate	47
Easy	19
Total	100

Nineteen percent of teachers felt that grammar teaching is an easy job whereas forty-seven percent felt it to be moderate level of difficulty but still there are another thirty-four percent of the teachers who felt that it is difficult to teach English Grammar.

The two methods - Inductive and Deductive are used by teachers in their teaching. The relative effectiveness of both methods as perceived by teachers is given below:

Table 1.2.3: Relative Effectiveness of Inductive and Deductive Method

Method	Number of Responses
Inductive	76
Deductive	24
Total	100

Data was analysed regarding the method found by the teachers through which students learn English Grammar in a better way in their classroom teaching. Seventy-six percent of teachers felt that Inductive Method is better than Deductive Method where as twenty four percent of teachers felt just the opposite. Thus, majority of teachers felt that Inductive Method makes the teaching learning process more effective.

Teaching involves several other parameters like involving students more in the class, time taken by each lesson and others. The views of teachers regarding various parameters were being taken and were analysed which are shown as below:

Table 1.2.4 Effectiveness of Inductive and Deductive Method with regard to Selected Parameters

Response	Inductive	Deductive	Total
Method leads to better students participation	69	31	100
Methods which is more time consuming	58	42	100
Method easier to use	57	43	100

Students' participation is very important in any teaching- learning situation. Teaching is considered effective only if students are not passive and for effective learning students should be effective learners in the class. Nearly 69% teachers felt that Inductive Method leads to better students' participation and 31% felt that Deductive Method keeps the learner more active. About 58% of teachers felt that Deductive Method is less time consuming than Inductive Method. Majority of teachers i.e. nearly 57% of teachers felt that they find it easier to give examples first and to deduce the rules afterwards (Inductive Method) while 43% felt that Deductive Method is easier to use.

English Grammar has several parts and teaching each part requires an accurate method of teaching. Following table shows the effectiveness of both methods in teaching specific parts of grammar.

Table 1.2.5: Effectiveness of Inductive and Deductive Methods in Teaching Specific Parts of Grammar

Parts of Grammar	Inductive	Deductive	Total
Nouns	81	19	100
Verbs	78	22	100
Pronouns	71	29	100
Adjectives	73	27	100
Articles	11	89	100
Adverbs	34	66	100
Prepositions	24	76	100
Tenses	61	39	100

After analysing the data, results were quite surprising as teachers feel that some parts can be taught best by Inductive Method and some by Deductive Method, thus, rejecting the long

term bias that most people held for Inductive Method. Nearly 81% teachers felt that Inductive Method is better for teaching of ‘Nouns’ and 78% favour the same method for teaching the ‘Verbs’. But, when it comes to teaching of ‘Articles’, 89% of teachers rely on Deductive Method and for teaching ‘Adverbs’, 66% teachers felt that Deductive Method is more effective. However, it may be noted that just 24% teachers felt that ‘Prepositions’ can be taught in a better way through Inductive Method. Inductive Method can be employed best to teach ‘Tenses’ (61%) and ‘Adjectives’ (73%).

In other words one can say that teachers treat Inductive Method as yielding better results in teaching ‘Nouns’, ‘Pronouns’, ‘Verbs’, ‘Adjectives’ and ‘Tenses’ whereas Deductive Method is more effective in teaching ‘Adverbs’, ‘Articles’ and ‘Prepositions’.

Table 1.2.6 Methods Used by Teachers other than Inductive Method and Deductive

Method	
Name of the Method	Number of Responses
Story-Telling	31
Question-Answer	43
Textbook	13
Activity	49
Drill	9
No Answer	29

Thirty one percent teachers use Story Telling method for teaching students while 43% use Question-answer, 13% teach through Textbook directly, 49% engage students in Activity and 9% teach students through regular Drill work. Thus the teachers use various methods in class to teach English Grammar.

The analysis henceforward deals with the testing of the hypotheses. Analysis and interpretation of each hypothesis is presented below:

Hypothesis 1

The Hypothesis 1 in the study states, “Teachers tend to teach English Grammar through both Inductive and Deductive Methods according to their convenience”. In order to test this hypothesis, the data from the questionnaire was used which are depicted in table below:

Table 1.2.7: Way of Using Inductive and Deductive Method

Teachers’ Response	Number of Response
Decide about the particular method in advance and plan accordingly	76
Use either Inductive or Deductive Method according to convenience just before teaching	24
Total	100

Seventy- six percent of the teachers view that they decide beforehand about the method they will be using while teaching English Grammar but 24% feel that they Inductive Method and

Deductive Method according to their convenience. Some of them even said that while teaching, if they feel that students do not understand properly; they often switch over to other method according to their convenience. Over three-fourth of the respondents have said that they decide about the method of teaching in advance. So the hypothesis stated above does not hold true. In other words, teachers plan before hand about the method they will be using to teach particular part of grammar.

Hypothesis 2

The teachers use both Inductive and Deductive methods in the classroom. In order to ascertain the extent of use of these methods, Hypothesis 2 was set up which states , “ There is no significant difference in the extent of use of Inductive and Deductive Methods by Elementary School Teachers in teaching of English Grammar.” In order to test this hypothesis, the numbers of lectures of English Grammar taken by teachers in a month by both methods were subjected to t-test.

Table 1.2.8: Use of Inductive and Deductive Method

Lessons to be taught through	N	Mean	S.D.	Df	t' value
Inductive Method	100	6.81	1.67	198	14.08**
Deductive Method	100	3.52	1.62		

**Significant at 0.01 Level

The Mean of the classes taken through Inductive Method was 6.81 and through Deductive Method was 3.52. The S.D. of Inductive Method was 1.67 and of Deductive Method was 1.62. The t-value came out to be 14.08 which was higher than the table value at 0.01 level of confidence (2.60). Hence the null hypothesis stated above stands rejected.

In other words, there is significant difference in the extent of use of both the methods. As the Mean value of lessons taught through Inductive Method is higher, it can be said that therefore teachers tend to teach through Inductive Method more than the Deductive Method.

Conclusions

- 1.Ninety-six percent of teachers felt that methodology plays a very important role in teaching English Grammar. This implies that all teachers joining a school must be professionally trained.
- 2.About 76% felt that Inductive Method is better than Deductive Method.

3. Teachers in general felt that Inductive Method yields better results in teaching 'Nouns', 'Pronouns', 'Verbs', 'Adjectives' and 'Tenses' where as Deductive Method is more effective in teaching 'Adverbs', 'Articles' and 'Prepositions'.
4. The teachers also uses other methods in class to teach English grammar apart from the Inductive and Deductive methods. Thirty one percent teachers use Story telling method for teaching students while 43% use Question-answer, 13% teach through Textbook directly, 49% engage students in Activity and 9% teach through regular Drill work.
5. Seventy-six percent of teachers view that they decide before hand about the method they will be using while teaching English Grammar but 24% feel that they use Inductive and Deductive method according to their convenience. Some of them even said that while teaching, if they feel that students donot understand properly, they often switch over to other method according to their convenience.
6. A significant difference is found in the extent use of both the methods. As the Mean value of lessons taught through Inductive Method is higher, it can be said that teachers tend to teach through Inductive Method more than Deductive Method.

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