

# **CHAPTER ONE**

## **INTRODUCTION**

This study is on “Teaching Tense Through Discovery Technique”. It consists of general background, importance of teaching grammar, the purpose of teaching grammar, method of teaching grammar, techniques of language teaching, discovery technique, action research, characteristics of action research, process of action research, review of the related literature, objectives of the study, and significance of the study.

### **1.1 General Background**

Generally, grammar is defined as the connection of words and word groups in as acceptable structure. It is one of the most important aspects of language.

- Grammar is regarded as a backbone of behaviour.
- Language is a type of rule governed behaviour.
- Grammar is sub-set of those rules which govern the configurations that the morphology and syntax of a language assume.

Harmer (1987, p.1) defines grammar as “The way in which words change themselves and group together to make sentences.” It means that grammar presents the way where words or group of words change and combine together when they become plural, or words into clause or clause into sentences.

Likewise, Ur (1988, p.4), thinks “Grammar may be roughly defined as the way a language manipulates and combines words (or bit of words) in order to form longer units of meaning.” It means that grammar produces the way of language in which longer units are built by combining the words or bits of words together.

Cowan (2008, p.3), says "Grammar is the set of rules that describes how words and groups of word can be arranged to form sentences in a particular language". It means that grammar is defined as connection of words and word groups in acceptable structures.

Thus, grammar is a systematic presentation of rules and principles of a language and applying these rules and principles any acceptable sentence is formed. In other words, grammar is one of the aspects of language which especially concerns with combination and ordering of words into sentences using appropriate rules.

### **1.1.1 Importance of Teaching Grammar**

In the present research work, English grammar is regarded as an integral part of language. English grammar is one of the aspects of language which makes languages understandable and meaningful. It means that it is very important in order to manipulate the language in speech and writing. The main purpose of teaching grammar is to help students to choose structures which express the meaning they want to create.

Chomsky thinks grammar is important because it enables the speakers to produce unlimited utterances with the help of limited rules. In Chomsky's (1957, p.25) words:

Any grammar of a language will project the infinite and somewhat accidental corpus of observed utterances, a sort (presumably finite) of grammatical utterances. In this respect, behaviors of speakers, who on the basis of a finite and accidental experience with language can produce or understand an infinite numbers of new utterances.

According to Palmer (1971, p. 9) Grammar is "A device that specifies the infinite set of well formed sentences and assigns to each structural descriptions." That is to say, it tells us just what all the possible sentences of a language are and provides a description of them.

So, grammar is important for the production of any correct utterance which makes a language meaningful. Similarly, grammar enables learners to use the language accurately and appropriately in meaningful language background. Each language has its own grammar.

### **1.1.2 The Purpose of Teaching Grammar**

The prime objective of teaching grammar is to enable students to carry out their communicative purposes using language. According to Thornbury (1999, pp. 15-17), there are several arguments for teaching.

#### **i. The sentence machine arguments**

Grammar has limited rules but by the help of these rules, a number of sentences can be produced. So, teaching grammar provides learners generate unlimited linguistic creativity.

#### **ii. The fine tuning arguments**

Learners are able to use correct structures of a language through teaching grammar. They learn language systematically.

#### **iii. The fossilization argument**

If we learn language without having been taught grammar, the language learning fossilizes. To put it simply, linguistic competence stops to develop.

#### **iv. The advance organizer arguments**

This argument shows that the learners can progress to learn language later when they learn formal system of language from the beginning.

#### **v. The discrete item argument**

Learning language means learning different aspects of language. This argument advocates that there is infinite number of sentences in language but these can be put into different grammatical items so that there will not be any confusion.

#### **vi. The rule-of-law argument**

Grammarians make language digestible thus grammar is system of rules, order and discipline. By the help of this, language is understood or transferred clear way.

#### **vii. The learner expectations argument**

Grammar is put in language teaching simply because of learners' expectations to learn grammar. Generally, learners wish to develop their grammatical competence in a particular language.

### **1.1.3 Method of Teaching Grammar**

Every language has its own grammar. The teaching of grammar gets due attention in second language learning since there needs learners conscious effort to learn language. There are mostly two methods of teaching grammar:

#### **(a) Deductive method**

It is a rule driven method. This method is based on the principle general to particular. This method begins with the presentation of grammar rules followed by examples and explanation of rules. For Thornbury (1999, p. 29) "... a deductive approach starts with the presentation of a rule and is followed by examples in which the rule is applied." In this method, learners are asked to practice the rules orally or in writing. This method is some what similar to grammar translation method.

Richards et al. (1991, p. 98-99), for them deductive is "an approach to language teaching in which learners are taught rules and given specific information about language, then, they apply those rules and they use language." It means that deductive method is one which emphasizes in presenting rules rather than examples. And teacher gives some specific information about the structure.

From the definitions of deductive method described above, the following features can be identified:

- i) Teaching proceeds from general to specific.
- ii) Teaching moves from abstract rules to concrete examples.
- iii) Teaching steps of this method are as follows:
  - ) Teacher writes the model structure on the board or draws students' attention to examples in the textbook.
  - ) He explains the underlying rules and makes use of metalanguage of grammar.
  - ) He helps the students to apply the rules orally or in writing.
- iv) This method is based on theoretical aspect rather than practical aspect, etc.

#### (b) Inductive method

The inductive method is appeared as an opposite of deductive method. In this method, learners are not taught grammatical rules directly but are left to discover from students' experience of using the language. For Richard et al. (1991,pp. 98-99), "In inductive learning learners are not taught grammatical or other types of rules directly but are left to discover or induce rules from their experience of using the language." It means that teacher does not teach grammatical rules directly rather he/she gives sufficient exposure so that students can discover rules from their experience.

Thornbury (1999, p. 14), says "an inductive approach starts with some examples from which rules inferred." It means that when the teacher teaches grammatical items using this method, he gives sufficient examples and students are asked to discover rules the examples.

From the definitions of inductive method described above the following features can be identified:

- i) Teaching proceeds specific to general.
- ii) Teaching procedures move from concrete rules to abstract rules.
- iii) It supports that statements or rules become meaningful to learners when they are made by observation working with the language.
- iv) This method based on 'Science of Observation'. So, it claims that valid statements are only arrived by:
  - ) Observation linguistic facts.
  - ) Classifying them,
  - ) Making generalization on what it is observed and classified.

#### **1.1.4 Techniques of Language Teaching**

A technique refers to what actually takes place in a classroom while teaching-learning activities are going on. In other words, technique is implementation that actually takes place in a classroom. It is a particular trick, strategy or contrivance used to accomplish an immediate objective.

A technique is the level at which classroom procedures are described. This reflects the fact that the procedure we implement in our classroom teaching is a technique. There are two types of techniques in general teacher-centered and learner-centered. Both techniques are equally employed in language teaching although learner-centered techniques are proved to be better. The learner-

centered technique and its proponents tend to view language learning as a process of acquiring the skills rather than body of knowledge.

Learner-centered technique emerged as a reaction against cognitive model of teaching a cognate of communicative language teaching because of “the relative inflexibility of centralized curricula, a change in educational thinking which paid more attention to the learner and led the school curriculum development movement” (Nunan,1988, p. 21).

There will be an active participation of learner in learner centered teaching and they are more enthusiastic to explore the language items they need to know. They are the learner-centered techniques: pair works, role play, drama, strip story, discovery techniques, etc. they are briefly described below:

#### **(a) Pair work**

Pair work is one of the communicative techniques used in language teaching. Pair work sound similar to group work. If each group consists of only two participants, then the group is a pair. In pair work, the participants work together. This technique appears to be useful for teaching a language. Both participants are equally important to contribute to solve the problem.

#### **(b) Role-play**

Role play is one of the techniques used in language teaching which sounds similar to simulation and dramatization. To some extent, they share some common properties. Role-play is a useful device used to teach languages in order to develop communicative oral skill of the learners. Role-play focuses on developing speech fluency as well as accuracy.

#### **(c) Drama**

Drama is a lively and interactive technique used in language teaching. It shares the properties of role play. It is a lively technique in which dialogues can be practiced following a systematic progression. The teacher introduces particular

features of grammar and pronunciation which are found in the dialogues for their intensive study. They are contextually presented in the dialogues. So the students can develop their understanding logically and naturally.

#### **(d) Strip story**

‘Strip story’ as a technique used in language teaching is an interesting game in which students take part actively. In this technique, students learn language better from themselves rather than from the teacher. Students are easily motivated. Simply, the teacher selects and branches it into several pieces. Each piece contains one event which serves as a clue to understand the story.

#### **(e) Discovery technique**

Discovery technique is a technique that is used in grammar teaching where students are exposed examples of language and they are left to find out the new rules. It is a learner-centered technique for teaching new structure. In discovery technique, learners are given chance to find out grammatical rules by engaging them on concerned item before presenting rules by the teacher. Through this technique, the teacher makes students do most of the work. And students become more involved in learning process by themselves.

##### **1.1.4.1 Discovery technique**

Discovery technique for the teaching grammar refers to any activity, exercise or technique which encourages students to discover facts about grammar and grammar usage. Discovery technique in general encourages maximum participation of students in teaching language. In discovery technique, students are given examples of language and told to find how they work i.e. to discover the grammar rules rather than telling them the rules at the most covert level as stated by Harmer (1987, p.38). This simply means that the students are exposed to a new language with no focus, sometimes before it is presented. At a more conscious level, students are asked to look at some sentences and how the meaning is expressed and what differences are between the sentences. As



students puzzle through the information and solve the problem in front of them, find out how grammar is used in a text.

There are four types of activity provided by Harmer (1987) for teaching grammar through the discovery technique. They are:

- (a) Preview
- (b) Matching techniques
- (c) Text study
- (d) Problem solving

**(a) Preview**

It is a covert way of allowing the students to discover new grammar rules themselves to preview it at some stage before it is actively learnt and taught. In other words, students are exposed to the new language overtly. They do not concentrate on it at this stage but the fact of having seen the grammar in action will help them to deal with it when they have to study it later. For examples, the teacher can give the following text to read and do the following activities.

"Ranju is studying in J.S.M.M. Campus now. She is still learning a computer course. She is speaking with her friends now. At this movement, she is going to picnic with her friends. She is helping her friends to cook food at this time. At present, she and her friends are celebrating a picnic."

Then, teacher can ask to read the text and answer the following questions:

- i) What is the structure of first sentence?
- ii) Which tense does the first sentence refer?

In the same way, the teacher will go on asking similar questions until the students become able to tell the rule.

**(b) Matching technique**

A number of grammar exercises ask students to match parts of sentences and phrases. They have to make choice about the activity to discover correct facts about grammar. For example, the teacher can give the same text,i.e. given under preview as "Ranju is studying in J.S.M.M. Campus now. She is still learning a computer course. She is speaking with her friends now. At this movement, she is going to picnic with her friends. She is helping her friends to cook food at this time. At present, she and her friends are celebrating a picnic." And ask the students to read and match the items:

A

B

She are celebrating a picnic.

She and her friends is still learning a computer.

**(c) Text study**

It refers to a technique of getting students to discover new grammar by asking them to concentrate on its use in a text. Teacher can get the students to look at the way language is used in a certain context. The principle aim of this technique is to get the students to recognize the language. For example, the teacher can give the text given under matching technique.

"Ranju is studying in J.S.M.M. Campus now. She is still learning a computer course. She is speaking with her friends now. At this movement, she is going to picnic with her friends. She is helping her friends to cook food at this time. At present, she and her friends are celebrating a picnic."

Then, the teacher will ask the students to read the text and fill the following table:

Table-1

Subject	Object	Aux.	Verb + ing

**(d) Problem solving**

In this technique students are provided with a problem and they solve it without learning overt input in advance. This technique encourages the students to talk about grammar and to analyse its properties. Students can look at the area of grammar rather than small detail in the future. For example: teacher will give the exercise by mixing several types of sentences which they have already studied and ask them to find out the structure, meaning of every sentence and so on.

There are many advantages of discovery techniques in teaching tense. This technique encourages students to learn tense by doing. The advantages of discovery technique are as follows:

- ) It develops communicative proficiency of the learners.
- ) The students may not commit any serious mistakes with respect to the structures because the expressions are given to them.
- ) The class will be interactive and motivated.
- ) It can be applied for teaching the students belonging to any cognitive and academic levels.
- ) It focuses on both fluency and accuracy.

- ) It leads to better understanding and clear interpretations of the sentences.
- ) It is based on students centered approach.
- ) It involves the students reasoning processes in the task of language/grammar acquisition.
- ) The teacher does not tell the students, how the language works or what the grammar is but the students themselves actually discover meaning and grammatical information.

### **1.1.5 Action Research**

Kurt Lewin is one of the founding father of action research. His work was deliberately intended to change the life chances of disadvantaged groups. Norton (2009, p.51) classifies action research into two distinct traditions:

- i) A British tradition that links research to improvement of practice and is education oriented.
- ii) An American tradition which links research to bringing about social change.

According to Cohen et al. (2010) “action research is a powerful tool for change and improvement at the local level” (p. 297). Today action research is considered as a tool to bridge the gap between the theoretical and the applied research. It is also known as pedagogical research in the sense that it is a classroom investigation which is carried out by practitioner to solve the specific problem.

Kemmis and Mc Taggart (1988) argue that three characteristics of action research; one that is carried out by the practitioner (for our purposes classroom teachers) rather than outside researcher; secondly, that is collaborative, and thirdly, that it is aimed at changing things”(as cited in Nunan 2010, p.17). In

Kemmis and Mc Taggart's opinion on an action research is that research, which is mostly carried out take real problem from the class. And it is collaborative in the sense that it is carried out in collaboration of classroom teacher and researcher to bring change in the immediate problems.

Likewise, Wallace (1998, p.16) defines action research "as a strategy for professional development which is accomplished by reflecting on the practitioners' regular activities". It means that action research is a practical research which is conducted to collect the data from the professional aspect and these data are analysed.

To sum up the above definitions about the action research, we have come to the conclusion that the action research is one of those researches, which are carried out by the practitioners with the collaboration of teachers and researcher aiming to solve the current problems in the classroom. In the action research classroom teacher and the researcher has to be the same person. In the action research the practitioner selects the most pressing problems and can conduct the research.

### **1.1.5.1 Characteristics of Action Research**

Action research has many characteristics. Kember (2000 as quoted in Norton, 2009, pp.54-56) gives seven major characteristics of action research which are as follows:

- (i) Social practice
- (ii) Aimed toward improvement
- (iii) Cyclical
- (iv) Systematic inquiry
- (v) Reflective
- (vi) Participative

(vii) Determined by the practitioner

### 1.1.5.2 Process of Action Research

Process of action research refers to different steps which are used while conducting action research. Different scholars have given different steps as regards the steps to conduct action research.

The following table shows the steps given by Nunan (1999), Wallace (1998), and Denscombe (1999).

Nunan(1992)	Wallace(1998)	Denscombe(1999)
1. Initiation	Consider problems/issues	Professional practice
2. Preliminary investigation	Ask questions	Critical reflection identifying problems or evaluating change
3. Hypothesis		Research (systematic and rigorous inquiry)
4. Intervention	Action research	Strategic planning (translating finding into action)
5. Evaluation	Data collection and analysis	Action (instigate change)
6. Dissemination		
7. follow up	Application to professional practice	

(As cited in Bhattra, 2005, p.16)

As suggested by Bhattra (2005, p. 17-18), the followings are the steps to carry out the action research:

#### Step 1. Initiation

The classroom practitioner notices students' weakness in teaching and learning certain items then to improve that weakness.

## **Step 2. Preliminary Investigation**

The researcher decides systematically to find out which problem is the most serious and faced by the majority of the students. For this the teacher prepares base-line data i.e. collects concern data.

## **Step 3. Hypothesis**

The researcher plans his/her activity to solve the problem identified in previous step and postulates a hypothesis.

## **Step 4. Intervention**

In this stage the teacher- researcher's regular practice is intervened by introducing some new element in it. The teacher researcher cannot afford to spend the whole period for a newly introduced element so s/he has to manage the classroom time in, such a way that regular practice and new element go side by side.

## **Step 5. Evaluation**

The researchers evaluate the change brought by the new action introduced in this.

## **Step 6. Dissemination**

This step highlights the value of sharing in action research. The researcher sits with the professional researcher, then presents problem, action tried out and the findings are achieved.

## **Step 7. Follow-up**

The findings of the study are followed up by the practitioners. By this, the regular way of teaching and learning is changed and the new one is adapted to introduce certain changes in the study.

### **1.2 Review of the Related Literature**

Many research studies have been carried out in the field of English language teaching in our country. Similarly, many research studies have been carried out in the methods and techniques of teaching grammar. Among them, some researches carried out in development of English education faculty of T.U. are as follows:

Rawal (2004) carried out his research study entitled “The Effectiveness of Drill Techniques in Teaching Passivisation. “A comparative study”. The objective was to find out the effectiveness of drill technique in teaching passivisation. To collect the data, pretest and post test were given and result of two tests was compared. And the finding shows that in teaching passivisation, drill technique is more effective than using icons-directed methods included in textbooks.

Biswakarma (2008) carried out a research entitled “Effectiveness of Teaching Grammar through Discovery Technique”. The objective of the study was to find out the effectiveness of discovery technique in teaching grammar. To collect the data, pretest and post test were given and result of two tests was compared. It was found that the discovery technique in teaching tense was found as the experimental group performance than controlled group.

Paneru (2009) carried out a research study entitled “Use of Computer for Teaching English Grammar.” The objective of this study was to find out the effectiveness of the use of computer in teaching grammatical items. To collect the data, pretest and post test were given and result of two tests was compared. And its finding was found that teaching grammar in the computer was more fruitful than teaching without it.



Kushawaha (2010) conducted a study on the "Effectiveness of Discovery Techniques in Teaching Article". He selected forty students of grade nine studying at Shree Bhola Secondary School, Bara. To collect the data, pretest and post test were given and result of two tests was compared. The finding of the study was to determine the effectiveness of discovery technique in teaching article. It was found that discovery technique in teaching article was found as the experimental group performance than controlled group.

Kafle (2011) carried out a research entitled "Effectiveness of Discovery Technique in Teaching Causative and Modal Verbs". The main objectives of the study were to find out the effectiveness of discovery technique for teaching causative and verbs. To collect the data, pretest and post test were given and result of two tests was compared. The study shows that discovery technique was found to be effective and motivating technique in teaching causative and modal verbs.

Parajuli (2011) carried out a research entitled "Developing Writing Skills Through Student's Quality Circles". The main objective of the study was to develop the writing skill through students' Quality Circles. Its objective was to identify the role of SQC to develop writing skill. To collect the data, pretest and post test were given and result of two tests was compared. It was found that SQC activities are helpful to develop students' creativity to develop ability to express their ideas as well as build confidence and make students self disciplined.

Baruwal (2011) carried out a research entitled "Developing Short Story Through Pictures". The main objective of this study is to see the effectiveness of pictures in developing short story in secondary level students. To collect the data, pretest and post test were given and result of two tests was compared. It is found to be effective in teaching short story in secondary level students.

Poudel (2011) carried out a research entitled "Effectiveness of Inductive Method in Teaching Causative Verbs". The main objective of this study is to

find out the effectiveness of teaching grammar through inductive method. To collect the data, pretest and post test were given and result of two tests was compared. The findings of this study show that teaching causative verbs through inductive method is effective.

Thus, the research work, mentioned above related to teaching grammar show that none of the research has been carried out on teaching tenses through discovery technique in Lower Secondary and Secondary Level. So the researcher is interested to carry out research on the very topic.

### **1.3 Objectives of the Study**

This study had the following objectives:

- i) to find out the effectiveness of discovery technique in teaching tense
- ii) to suggest some pedagogical implications.

### **1.4 Significance of the Study**

The study “Title” is significant in the sense that it is a new experiment on how discovery technique can develop the students’ proficiency in tense. This study will be helpful to find out the students’ problems in tense and to explore the ways to solve the problems in tense. The findings will be useful to all those who are involved in teaching language, especially English language teaching.

Similarly, it will be beneficial to researchers and language teachers in two ways. They will be acquainted with different students-centered technique of English language. And they will be introduced with action research for how to carry out for the similar topics. It will encourage students to carry out the action research.

## **CHAPTER TWO**

### **METHODOLOGY**

This chapter on methodology briefly describes the method and procedures adopted to carry out this study. The population, sampling procedures, research tools and their preparation, administration and other procedures are described below. To fulfill the observation of this study the following methodology was adopted.

#### **2.1 Sources of Data**

To meet the objective of the study, the researcher used both primary and secondary sources of data.

##### **2.1.1 Primary Sources of Data**

The primary sources of this study were the students of grade nine studying in government aided school of Siraha district.

##### **2.1.2 Secondary Sources of Data**

The secondary sources of data for this research were the related materials with the research topic like textbooks, journals, magazines, internet, articles, handbooks and other sources were Harmer (1987), Nunan (1992), Ur (1996), Wallace (1998) and other reference materials.

#### **2.2 Population of the Study**

The population of the study were 30 students of the Shree Pashupati Adarsh Higher Secondary School Lahan, Siraha.

#### **2.3 Sampling Procedures**

To carry out this research, I selected the students of grade nine of the Shree Pashupati Adarsh Higher Secondary School, Lahan, Siraha. Students were

selected using purposive sampling procedure and all the students selected from the grade nine of the same school. And 30 learners were taught in the very school.

## **2.4 Tools for Data Collection**

The tools, I used to collect the data included pre-test, progressive test and post-test. The pre-test and post-test were of the same test items whereas progressive tests were of different one to evaluate the students progress in teaching tense.

## **2.5 Process of Data Collection**

- ) At first, I visited the selected school and talked to concerned authority for permission to carry out this research in this school.
- ) I designed a set of text items to measure proficiency of students in tense and used before and after teaching.
- ) I administered pre-test and kept the record.
- ) I analyzed the score of pre-test and the real teaching started by using discovery technique.
- ) I administered progressive test in the interval of the 7 days.
- ) Then, I administered post- test.
- ) Finally, the score of the pre-test, progressive test and post-test were analyzed to determine the effectiveness of discovery technique developing proficiency in tense.

Individual scores of each student were analyzed and tabulated on the basis of individuals' score. Scores, average scores were calculated and then differentiated between the average scores of pre-test and post-test were computed.

## **2.6 Limitations of the Study**

The study had the following limitations:

- i) The research was based on only grammatical item i.e. present and past tense.
- ii) The sample population of the study was only limited to the students of class 9 of Shree Pashupati Adarsh Higher Secondary School Lahan, Siraha.
- iii) Thirty students of grade nine were the study population.
- iv) The study was limited to 26 classes only.

## **CHAPTER THREE**

### **ANALYSIS AND INTERPRETATION**

This chapter consists of analysis and interpretation of the data from primary sources. Here, I will present how I taught the classes for 26 days in grade nine using discovery technique. I faced many problems when I started to collect data. One of the main problem is ethical: they (students) had morally believed that teaching style of our teachers is good; but I started teaching tense using discovery technique. Next, language problem: they felt sometime difficult to understand English language. Then test problem: they had fear from test; they were not interested to have any test. After that discipline problem: they were not behaving as disciplined students with me; but I maintained good relation with them in the course of teaching.

The research was conducted on 30 students of Shree Pashupati Adarsh Higher Secondary School Lahan, Siraha. Data collection was initiated in accordance with the objectives of the research, i.e. to find out the effectiveness of discovery technique in teaching tense and to provide some pedagogical implications of the study. In this study, initially I administered pre-test to know the students' proficiency level. Then, I taught them about tense through discovery technique.

I took three progressive tests in the interval of seven days each to assess their progress. Finally, a post-test was administered to find out the effectiveness of discovery technique in teaching tense. For this purpose, I tabulated and analysed the data in the following order.

#### **3.1 Comparative Analysis of the test scores**

In this analysis, the students' average score of different test are analyzed comparatively below:

### 3.1.1 Comparative Analysis of Pre-test and Post- test

In this comparison, the score of the pre-test and the Post-test are analysed and compared. The comparison of the scores of both tools is clearly shown in the table below.

**Table No. 1**  
**Comparative Analysis of Pre-test and post-test**

Test	Students No.	Total marks	Obtained Marks	Percentage	Increased Marks	Increased %
Pre-test	30	1500	702	46.8%	-	-
Post-test	30	1500	1242	82.8%	540	-

The above table shows that the total score of the pre test was 702 i.e. 46.8% and the total score of post test was 1242 i.e. 82.8%. Thus, the score in progressive test I is increased by 540 or 36%. The percentage of the post test was increased very high than the pre test. So, the difference of the percentage between two tests proved that students' proficiency on tense was developed through discovery technique.

### 3.1.2 Comparative Analysis of pre test and progressive test-I

The score of pre test is analyzed and compared with the scores of progressive test-I which is shown in the following table.

**Table No. 2**

**Comparative Analysis of pre test and progressive test I**

Test	Students No.	Total marks	Obtained Marks	Percentage	Increased Marks	Increased %
Pre-test	30	1500	702	46.8%	-	-
Progressive test-I	30	300	185	61.66%	-	14.86%

The total marks of pre test was 702 i.e. 46.8% and the total mark of the progressive test-I was 185 i.e. 61.66%. Similarly, the increased percentage of progressive test I was 14.86% which is clearly shown in the above table.

Thus, the difference between the percentage of the two tests proved that students' proficiency on tense was developed through discovery technique.

**3.1.3 Comparative Analysis of progressive tests and progressive test-II**

In this comparison, the scores of the progressive test-I and progressive test-II are analysed and compared. The comparison of the scores of the both tests is clearly shown in the table below.

**Table No. 3**

**Comparative Analysis of progressive test-I and progressive test-II**

Test	Students No.	Total marks	Obtained Marks	Percentage	Increased Marks	Increased %
Progressive Test-I	30	300	185	61.66%	-	-
Progressive Test-II	30	300	192	64%	7	2.33%

The total marks of progressive test-I was 185 i.e. 61.66% and the total mark of the progressive test-II was 192 i.e. 64%. Similarly, the increased percentage of progressive test-I was 2.33% which is clearly shown in the above table.



Thus, the difference between the percentage of the two tests proved that students' proficiency on tense was developed through discovery technique.

### **3.1.4 Comparative Analysis of progressive test-II and progressive test-III**

The score of the progressive test-I is also analysed and compared with the score of the progressive test-III which is shown in the following table:

**Table No. 4**

#### **Comparative Analysis of progressive test-II and progressive test-III**

Test	Students No.	Total marks	Obtained Marks	Percentage	Increased Marks	Increased %
Progressive Test-II	30	300	192	64%	–	–
Progressive Test-III	30	300	240.5	80.16%	48.5	16.16%

The above table shows that the total marks of progressive test-II was 192 i.e. 64% and the total marks of the progressive test-III was 240.5 i.e. 80.16%. Similarly, the increased percentage of progressive test-III was 16.66% which is clearly shown in the above table.

Thus, the difference between the percentage of the two tests proved that students' proficiency on tense was developed through discovery technique.

### **3.1.5 Comparative Analysis of progressive test-III and post-test**

In this comparison, the score of the progressive test-III and the post-test are interpreted and compared. The comparison of the scores of both the tests is shown in the table below:

**Table No. 5**

### Comparative Analysis of progressive test-III and post-test

Test	Students No.	Total marks	Obtained Marks	Percentage	Increased Marks	Increased %
Progressive Test-III	30	300	240.5	80.16%	–	–
Post-Test	30	1500	1242	82.8%	–	2.64%

The above table shows that total obtained marks of the progressive test-III was 240.5% or 80.16% and the total obtained marks of the post test was 1242 or 82.8%.

Thus, there is a vast difference between the score of progressive test-III and the post test. So, the differences of the percentage between two tests proved that students' proficiency on tense was developed through discovery technique.

### 3.2 Analysis and Interpretation of pre-test, progressive tests and post-test

This section comprises the analysis of the scores of the students on the pre-test, progressive tests and post- tests in question.

#### 3.2.1 Analysis of the scores on the pre-test

Before I taught using discovery technique, I administered a set of test items as the pre-test to determine the students' initial proficiency level on tense. The scores of the students on the pre-test were as follow:

**Table No. 6**  
**Scores obtained from the pre-test**

S.N.	F.M.	Marks Obtained	Percentage	No. of students	Percentage
1	50	30	60	1	3.33%
2	50	29	50	1	3.33%
3	50	28	56	2	6.66%
4	50	27	54	1	3.33%
5	50	26	52	1	3.33%
6	50	25	50	2	6.66%
7	50	24	48	2	6.66%
8	50	23	46	7	23.3%
9	50	22	44	7	23.31%
10	50	21	42	1	3.33%
11	50	20	40	5	16.65%
Total	1500	702	46.8%	30	100%

(Average score: 23.4)

As the above table shows 3.33% of the students have scored 30 marks which is the highest score on the pre-test, and 16.65% of the students have obtained 20 marks, which is the lowest score on the pre-test. Around 33% percent of the students were above the average score and 67% of the students were below it. This result clearly shows that the students have varied proficiency on tense.

### **3.2.2 Analysis of the score on the progressive tests**

Progressive tests are administered to find out students' progress. In my research, I have carried out three progressive tests in the interval of seven days.

### (a) Progress test I

After observing the pre-test scores of the students, I found that their scores were distributed around the average score of 23.4 (out of the 50 as full marks). In the interval of 7 days, I administered the progressive test-I that is as follows:

**Table No. 7**  
**Scores obtained from the progressive test-I**

S.N.	F.M.	Marks Obtained	Percentage	No. of students	Percentage
1	10	7.5	75%	8	26.64%
2	10	7	70%	3	9.99%
3	10	6.5	65%	5	16.65%
4	10	6	60%	2	6.66%
5	10	5.5	55%	5	16.65%
6	10	5	50%	2	6.66%
7	10	4.5	45%	4	13.32%
8	10	4	40%	1	3.33%
Total	300	185	61.66%	30	100%

(Average score: 6.16)

As the table shows, 26.64% of the students have scored 7.5 marks, which is the highest score on the progressive-I test. And 3.33% of the students obtained 4 marks (out of the 10) which is the lowest score on this test. Around 53% of the students were above the average whereas 47% of the students were below average in the progressive test-I. This result clearly shows that the students have progressed in tense using discovery technique.

### (b) Progressive test II

After taking the progressive test-I at the interval of 7 days again I administered progressive test-II to determine the students' progress in grammar (tense) by using discovery technique. The scores of the progressive test-II are as follows:

**Table No. 8**  
**Scores obtained from progressive test-II**

S.N.	F.M.	Marks Obtained	Percentage	No. of students	Percentage
1	10	7.5	75%	8	26.64%
2	10	7	70%	6	19.98%
3	10	6.5	65%	5	16.65%
4	10	6	60%	3	9.99%
5	10	5.5	55%	3	9.99%
6	10	5	50%	2	6.66%
7	10	4.5	45%	2	6.66%
8	10	4	40%	1	3.33%
Total	300	192	64%	30	100%

(Average score: 6.40)

As the table shows 26.64% of the students have scored 7.5 (out of the 100%) on the progressive test-II. And 3.33% of the students obtained 4 marks i.e. 40% (out of the 10 full marks or 100%), which is the lowest score on this test.

Around 63% of the students were above the average score where as 37% of the students were below in the progressive test-II. The students have again shown the remarkable progress in tense by using discovery technique.

### **(c) Progressive test-III**

After analyzing the scores of progressive test-II, I taught again 7 days in total (20 days), a progressive test-III was taken. The scores of progressive test-III are as follows

**Table No. 9**

**Individual scores on progressive test-III**

S.N.	F.M.	Marks Obtained	Percentage	No. of students	Percentage
1	10	9	90%	8	26.64%
2	10	8.5	85%	7	23.31%
3	10	8	80%	5	16.65%
4	10	7.5	75%	4	13.32%
5	10	7	70%	3	9.99%
6	10	6.5	65%	1	3.33%
7	10	6	60%	1	3.33%
		5.5	55%	1	3.33%
Total	300	240.5	80.16%	30	100%

(Average score: 8.01)

As the table shows, 26.64% of the students have scored 9 out of 10 full marks, which is the highest score on the progressive test-III. And 3.33% of the students obtained 5.5 marks, which is the lowest score on the progressive test-III. Around 67% of the students were above the average score but 33% of the students obtained below the average score. The distribution of the score on this test continued to be similar to the previous one. The progress of the students have shown the changed the situation in the classroom. It again shows that the use of discovery technique really has effective role in teaching tense

**3.2.3 Analysis of the score on the post test**

After taking the progressive test -III, at the end of experimental teaching, I administered a set of test item (i.e. post test) to determine the effectiveness of discovery technique in teaching tense. The following table shows the scores of the students on the post-test.

**Table No. 10**

### Scores obtained on post-test

S.N.	F.M.	Marks Obtained	Percentage	No. of students	Percentage
1	50	45	90%	3	9.99%
2	50	44	88%	2	6.66%
3	50	43	86%	4	13.32%
4	50	42	84%	5	16.65%
5	50	41	82%	6	20%
6	50	40	80%	4	13.3%2
7	50	39	78%	3	9.99%
8	50	38	76%	3	9.99%
Total	1500	1242	82.8%	30	100%

(Average score: 41.40)

Observation of the above table shows that 45 out of 50 is the highest score obtained by 9.99% of the students in post-test whereas 38 out of 50 is the lowest score of post-test which is obtained by same 9.99% of the students. In comparison to pre-test, it shows that there is progress in grammar (i.e. tense). Around 47% of the students were above the average score whereas 53% of the students obtained below the average score. In comparison to pre-test scores, post-test scores show the remarkable progress of the students in tense. This result clearly shows that the use of the discovery technique is really effective in teaching tense.

## **CHAPTER FOUR**

### **FINDINGS AND RECOMMENDATIONS**

This chapter deals with the major findings of the study. It also deals with some recommendations made on the basis of the major findings of the study.

#### **4.1 Findings**

On the basis of presentation, analysis and interpretation of the data, the following findings have been extracted.

- a. The students' average score on the pre-test (23.4), compared with the post-test scores (41.4), showed a remarkable progress made by the students in grammar (tense) taught through discovery technique.
- b. The students' average on the pre-test (23.4), compared to the total average of progressive test-I (6.16), also showed the effectiveness of discovery technique in teaching tense.
- c. The average scores on the progressive test-I (6.16), compared to the progressive test-II (6.40), showed the remarkable progress made by students in teaching tense through discovery technique.
- d. The average scores of the students on progressive test-II (6.40) compared to the progressive test-III (8.01), showed remarkable progress made by the students in grammar (i.e. tense) through discovery technique.
- e. The students percentage on progressive test-III (8.01) compared to the post-test (41.4), showed the effectiveness of discovery technique in teaching tense.



## 4.2 Recommendations

The following recommendations have been made on the basis of the above mentioned findings of the study:

- a. In teaching tense, discovery technique has been found quite effective. So, discovery technique should be applied.
- b. The students have shown the progressive result in different tests. So, it can be inferred that the discovery technique proved on effective technique in teaching tense.
- c. Thus, technique provides more examples and context which help them to form rules themselves. So, the teacher should manage the time properly.
- d. Discovery technique should be used to teach tense. In discovery technique, the students should be left to discover the new structure rather than the rules from the beginning. They become active in learning. So, discovery technique plays vital role in teaching tense.
- e. Teacher should be trained to use discovery technique in their classroom.
- f. Discovery technique should be suggested as a technique to teach tense in the courses for it has been found more effective in this research.
- g. Similarly, this research was limited only to one area of grammar i.e. tense. Similar types of research can be carried out on the other areas of grammar items like: tag questions causative verbs, conditional sentences.

h. This study was conducted in one of the government aided school of Siraha district. It was limited to only 30 students. So, it cannot be claimed that the findings of this study are applicable to all the schools. Therefore, it is suggested that further research in different schools should be carried out involving a large number of students to make the findings more reliable and valid.

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