Methodology of the Study

5.1 An overview

This chapter has been divided into two parts. The first part is devoted to the design of the study and the second part deals with the general procedure and experimentation. This chapter deals with objectives of the study, sampling procedure, construction of tools, the process of development of learning materials, administration of tools and collection of data. In any experimental study it is necessary to obtain a matched pair group of sample either at the entry point or pre-test and post-test design to estimate the effects of experimental variables on the sample under study. Keeping this idea in mind sampling was done by using the appropriate methods at the different stages. To fulfill the objective of the study all the related instructional materials along with appropriate tools were developed by following scientific steps of research methodology. All the tools and tests were administered under normal set up and condition to achieve the maximum output of the experiment. Every phase of the study was conducted with the students of the selected schools under normal situation. The investigator himself conducted the study to maintain similar conditions in each of the schools, so that effective outcome of the experiment might be obtained. Response sheets were collected to obtain necessary data. Procedures of different areas have been presented in this chapter.

5.2 Objectives of the study

The following objectives were laid down for the study:

i) To estimate the intelligence of the treatment groups.

ii) To identify the entry level knowledge of the students into two matched group on the basis of their entry level knowledge of English.

iii) To analyse the basic components of different teaching strategies of English.
Methodology of the study

iv) To find out the effective teaching strategies for teaching English at the secondary level.

v) To organize learning materials on the basis of teaching strategies for classroom instruction.

vi) To estimate the effects of strategies on students’ learning.

vii) To find out the most effective strategy for teaching English at the secondary level under different conditions.

5.3 Need and Significance of the Study

English has been included as a compulsory subject or second language at the Secondary level in West Bengal Board of Secondary Education (W.B.B.S.E.). Like all other subjects, English has a very special significance and importance at this stage as well as in higher education. The achievement of the students at the Secondary level in English indicates poor performance in Secondary schools. Most of the students accomplish their schooling in their mother tongue i.e. Bengali. Though they have attained heaps of marks in core subjects, they remain very poor at English still. There may be factors for such type of low achievement in English at the Secondary level in that area, viz., teaching methods or approaches, students’ attitude towards English, students’ intelligence, lack of interest, previous knowledge in the subject, family education, social and economic condition, school environment, and other facilities during the teaching-learning situations etc. It is normally being found that most of the teachers of English follow a stereo-type system of classroom teaching at the secondary level which does not yield expected output of the teaching-learning process. Another important factor is that the students have an unknown fear and fever over English. These may affect on their achievements. To testify the validity of the propositions further in-depth studies are required. Considering these issues; the present study is designed with three methods/approaches of teaching in the basis of model, namely, the Direct Method; the Grammar Translation Method and the Functional Communicative Approach, for teaching English at Secondary level. Effective results of the studies with methods/approaches of teaching may change the classroom teaching-learning environment for better achievement.
5.4 Assumptions

Assumptions underlying the hypotheses

- English teaching is possible through different strategies.
- The students’ ability can be judged with standardized evaluative tests.
- The learning outcome is reflected through the achievement test scores.
- Teacher-made test can be used as a standardized test, if it is constructed properly.

5.5 Hypotheses of the study

The following hypotheses were formulated on the basis of the objectives of the study

H₁: The effects of strategies on students’ learning differ significantly.

H₂: The effects of interaction with different contents on students’ learning differ significantly.

H₃: The effects of different strategies on the learning of different sex group differ significantly.

H₄: The first order interaction effects due to strategy, contents and students’ intelligence differ significantly.

H₅: The effects of strategies on students’ learning retention differ significantly.

H₆: The achievements of students in post test treated through different strategies at the 60×60 criterion level differ significantly.

H₇: The achievements of students on retention test treated through different strategies at the 60×60 criterion level differ significantly.

5.6 Scope and Delimitation of the Study

The researcher has conducted the study in different areas, with different schools and the different modes of education, with different groups of students and in different areas of
knowledge in English. But to consider the feasibility and the availability of the resource the study has been delimited on the following lines:

i) The District Bankura was selected as the area of the study.

ii) The secondary schools affiliated by the WBBSE (West Bengal Board of Secondary Education) were selected for the study.

iii) Only secondary schools of three categories: Boys’, Girls’ and Co-Education had been taken for the study.

iv) Only the students of class IX of the selected schools were taken as sample, as the class IX was considered as the delta class under secondary education.

v) Only prose and poetry of the English syllabus of class IX were taken as contents for the study.

vi) Only the cognitive domain was considered to estimate the achievement of English in the study.

5.7 Population and Sample

In this study the researcher has estimated the effectiveness of the strategies of teaching English and conducted the experimental research. The researcher has selected a requisite number of students for the study. In the study 384 students of class IX were selected on the basis of their willingness to participate throughout the study. In all 384 students have shown their interest and school authorities have permitted them. 384 seemed to be a large number for conducting the present study so finally 300 students were randomly selected for present study. The sample was consisted of equal number of boys and girls. In this connection a list of secondary schools in Bankura district following text book of West Bengal Board of Secondary Education (WBBSE) were prepared for the study. The list was classified on the basis of school categories, i.e. Boys’, Girls’ and Co-Education school. From three categories of schools the researcher has taken eight schools (two Boys’ school, three Girls’ school and three Co-Ed. school.) for conducting his study. Students of the following schools were administered the Entry Level Behaviour Test Questionnaire prepared by the researcher and Intelligence Test Questionnaire prepared by Raven. The sample students also were
Methodology of the study

administered Achievement Test Questionnaire and Retention Test Questionnaire of one prose and one poem which were selected by the researcher from their syllabus.

**Table 5.1 Showing the Student Respondents of Different Selected Schools**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>NAME OF THE SCHOOL</th>
<th>Type of the school</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Khatra Boys' High School</td>
<td>Boys’</td>
</tr>
<tr>
<td>2</td>
<td>Ranibandh Boys' High School</td>
<td>Boys’</td>
</tr>
<tr>
<td>3</td>
<td>Khatra Girls' Uccha Vidyalaya</td>
<td>Girls’</td>
</tr>
<tr>
<td>4</td>
<td>Raipur Girls' High School</td>
<td>Girls’</td>
</tr>
<tr>
<td>5</td>
<td>Bethuala Adarsha Girls’ High School</td>
<td>Girls’</td>
</tr>
<tr>
<td>6</td>
<td>Dhanara High School</td>
<td>Co-education</td>
</tr>
<tr>
<td>7</td>
<td>Lurka Desbandhu High School</td>
<td>Co-education</td>
</tr>
<tr>
<td>8</td>
<td>Pairaguri High School</td>
<td>Co-education</td>
</tr>
</tbody>
</table>
Methodology of the study

SCHEMATIC PLAN OF SAMPLING

BANKURA DISTRICT, West Bengal

- SELECTED
  - Ranibandh, Raipur, Khatra
  - Secondary Schools
    - Boys’
    - Girls’
    - Co-Education
      - 2
      - 3
      - 3
    - 8
  - IX
    - Selected
  - V to VIII & X
    - Not Selected

It is a delta class

Selected all students

- Boys’ school
  - 114
- Girls’ school
  - 147
- Co-ed school
  - 123

Total No. of students = 384
Sample used in this study = 300

Fig. 7: Flow Chart to show the Schematic Plan of Sampling
Methodology of the study

Description of Sampling

The systematic sampling procedure was adopted for the selection of representative sample for the study. The researcher selected Bankura District in West Bengal for the study because he works as an English teacher in that district. The district comprised of eight Blocks. The researcher only selected three Blocks namely, Ranibandh, Raipur and Khatra by lottery method. Among those three Blocks the researcher selected eight schools (two Boys’ school, three Girls school and three Co-education school). Only Class IX was selected from those schools for the present study. In the study 384 students of class IX were selected on the basis of their willingness to participate throughout the study. In all 384 students have shown their interest and school authorities have permitted them. 384 seemed to be a large number for conducting the present study so finally 300 students were randomly selected for present study. The sample was consisted of equal number of boys and girls i.e., 150 boys and 150 girls.

5.8 Tools used in the Study

The researcher has used two different categories of tools for the study.

A. Instructional Tools:

1. Instructional Schedule for the Teachers.
2. Instructional Schedule for the Students.

B. Evaluative Tools and Learning Materials:

1. Learning Materials on the selected contents.
2. Intelligence Test
3. Entry Level Test on English
4. Achievement Test on the selected contents.
5. Learning Retention Test on the selected contents.

5.9 Variables of the study

The variables in the present study are

1. Students [Boys and Girls]
2. Strategies [Three]

3. Contents [Two]

4. Intelligence [One]

5. Schools [Eight]

5.10 Definition of Important Terms Used in the Study

Model

Model is an analogous term that helps scientists to arrange their findings and see important relations among them. Most scientists, however, prefer the term ‘paradigm’ to ‘model’ as it refers to a set of basic assumptions that outline the universe of scientific enquiry specifying both the concepts regarded as legitimate and the methods to be used in collecting and interpreting data.

Models of Teaching

According to Joyce and Weil (1978), “a teaching model is a pattern or plan which can be used to shape curriculum or course to design instructional materials and to guide a teacher’s actions”. Thus, a model of teaching in classrooms or tutorial settings to shape instructional materials, including books, films, tapes and computer mediated programme and curricula and long term courses of study (Joyce, Weil and Showers, 1992). Apart from the above uses it creates the necessary environment, which facilitates the teaching-learning process.

Instructional Methods / Models

Instructional methods are used by teachers to create learning environments and to specify the nature of the activity in which the teacher and learner will be involved during the lesson. While particular methods are often associated with certain strategies, some methods may be found within a variety of strategies. In this study, instructional models refer to the three strategies of instruction, viz. Instruction incorporating with the models of Direct Method, Grammar Translation Method and Functional Communicative Method.
Methodology of the study

Instructional Material

The material has been specially prepared to present learning experience on the poem ‘The Daffodils’ and the prose ‘The Importance of Jute’ from Learning English.

Strategy

A method or plan chosen to bring about a desired future, such as achievement of a one or more goal or solution to a problem.

Instructional Strategy

Instructional strategy determines the approach a teacher may take to achieve learning objectives.

Effectiveness

Effectiveness is the capability of producing a desired result. When something is deemed effective, it means it has an intended or expected outcome, or produces a deep, vivid impression.

Effects

Different treatments are expected to result in different learning outcomes of the learners. In the study, the mean difference determines the effectiveness of each instructional model. Different instructional model will give different learning outcomes. Hence, there exist effects due to the variation of instructional models.

Randomization

A process by which number of a universe has an equal probability of being selected.

Immediate Learning

Immediate Learning refers to the process of acquiring concepts, principles, and process by relating these to the existing subsumes such that the new learning may be more readily accomplished. It represents an increment in the availability of new concepts.
**Retention**

Retention refers to the process of maintaining the availability of the concepts, which had already been learnt, without much effort.

**Intelligence**

Intelligence is the aggregate or global capacity of an individual to act purposefully, to think rationally, and to deal effectively with this environment. It is the ability to undertake activities that are difficult, complex and abstract and which are adaptive to a goal, and are done quickly and which have social value and which lead to the creation of something new and different.

**Method or approach**

A method determines what and how much is taught (selection), the order in which it is taught (gradation), how the meaning and form are conveyed (presentation) and what is done to make the use of the language unconscious (repetition). Method deals with “how to teach” whereas, approach deals with “what to teach”. Approach means coming nearer to perfection of language learning. The aim of English language teaching methods and approaches is mastery of the four language skills (listening, speaking, reading and writing).

5.11 **Construction of Tools**

In order to draw any valid conclusion from the experimental research, instruments used for the measurement of variables should be carefully constructed or selected for precise assessment.

**Construction of an Entry Level Test in English**

The Entry Level Test in English was constructed to estimate the entry-level behaviour of students in English, selected as sample. The test was constructed on the previous knowledge of English of the students those who were entering in the Madhyamik syllabus. The test was constructed with the following steps:
Methodology of the study

i) Construction of test items: Before constructing the entry-level test, the syllabus of English at the secondary stage was analyzed thoroughly. Considering the general components of the syllabus related to English a set of question items were constructed. To develop more items ten teachers of secondary schools were requested to write the appropriate items for teaching English. The researcher was collected all the items, sequentially arranged and initially 60 items were collected for Entry Level Test in English.

ii) Experts’ Verification: The questionnaire was presented before ten subject teachers of secondary schools. They were requested to go through the questionnaire carefully and judge the items whether the items were appropriate, to verify the entry-level knowledge of English, which were required for studying English at the Madhyamik level. Teachers were also requested to indicate the irrelevant test items with cross mark and put alternatives in place of that. On the basis of subject teachers’ opinion the test items were modified and altered where necessary. Irrelevant statements were subjected for the test. As a result 40 statements were selected after subject experts’ verification. The list of 40 statements was again presented before five teacher expert in the field of Evaluation. They were requested to verify the necessary condition of the statements and modify the statements where it was necessary. On the basis of minor modification of the statements 40 statements were selected for try out.

iii) Try-out: The Entry Level Test in English was implemented on 384 students those who have been just entered into Madhyamik level i.e. Class IX. The students were asked to answer all the items as per instructions. Time limit of the test was decided on the basis of experts’ suggestions. It was decided that on an average two minutes would be allotted to answer each item. As a result 80 minutes would be required to answer the whole test. It has also been found that a total time of one hour twenty minutes was needed to answer the test items for more than 75% students. Response sheets were collected after the allotted time. Marks were awarded as per answer-key and scoring-key. Later, collected scores were analyzed statistically. Items were modified on the basis of students’ response and on the basis of try-out results 40 items were selected for the final form of ELTE.

Scoring Key

Answer sheet and scoring keys were avail with the test booklets. One mark was allotted for each correct response. So, the full marks of the test booklets were 40. No mark
was allotted for a wrong answer. The final form of the test has been presented in Appendix-A.

**Raven’s Advance Progressive Matrices Test [RAPMT]**

To assess the non-verbal intelligence of selected samples, RAPMT was used. The standard Progressive Matrices Sets A, B, C, D & E were designed to cover widest possible range of mental ability and to be equally useful with persons of all ages, whatever their education, nationality or physical condition might be. A short practice set, designed to illustrate the method, would have served equally well. The scale was also designed to illustrate the method, would have served equally well. The scale was also designed to provide a reliable estimate of a person’s capacity to think clearly when he was allowed to work steadily at his own speed from the beginning to the end without interruption. As the five sets of tests forming the scale each begin with easy problems and end with difficult ones, it was not expected that the results would be highly reliable if the scale was used as a test of intellectual efficiency where a person was only allowed a limited time to work and did not necessarily complete the whole of the scale before stopping. At the time of construction, its limitations were recognized.

A request has since been made for a test which will indicate in a few minutes whether a person is intellectually “low”, “average” or “high”. A demand has also arisen for a reliable test of intellectual efficiency which can be used with people of more than average intellectual capacity and which will differentiate clearly between individual persons of even superior ability.

The Advance Progressive Matrices Sets I and II are constructed to meet these demands. It was originally drafted in 1943 for use at War Office Selection Boards. In 1947 a revision was prepared for general use as a non-verbal test of the intellectual efficiency with which, at the time of the test, a person is able to form comparisons between figures and develop a logical method of reasoning. Over verbal tests, it has the advantage that the clarity of a person’s thought processes is assessed independently of any educational attainments. Over performance tests, it has the advantage that, for the amount of time spent in giving the test, the information obtained is more exact and valuable.

Until the test had been used with a wide range of adults of superior intellectual ability it was not possible to determine the best order in which to arrange the problems in the scale.
Experimental work with the 1947 edition undertaken by G. A. Foulds together with an item analysis made by A. R. Forbes and H. G. Bevans of test protocols supplied by organizations using the 1947 edition for vocational guidance or occupational selection has made it possible to do this. In the 1962 edition, twelve problems which made no contribution to the score distributions for adults of more than average intellectual ability have been taken out of Set II and the remaining problems arranged in order according to the frequency with which they were solved as the total score on the revised Set advanced 0 to 36.

The 1962 edition of RAPMT is arranged so that it can be used equally well, without a time limit, in order to assess a person’s total capacity for observation and clear thinking, or with a time limit, in order to assess the efficiency of his intellectual work. It consists of two sets of tests. In set-I there are 12 problems. They are designed to introduce a person to the method of working and cover all the intellectual processes needed for success in set-II. In this Set there are 36 problems. In presentation and argument they are identical with those in Set-I. They only increase in difficulty more steadily and become considerably more complex. As they are arranged in order according to the frequency with which they are solved the validity of the total score does not depend upon everyone attempting all the problems in the scale before stopping. At the first attempt, no one of even outstanding intellectual capacity solves them all in less than forty minutes, while a person’s interest and attention are maintained for well over an hour without boredom.

To assess a person’s total capacity for observation and clear thinking, he can be shown Set-I and the principle of the test explained to him. He can then be given Set-II and can be allowed to work through it at his own speed from beginning to end without interruption. To assess a person’s total intellectual efficiency, Set-I can be given as a short practice test followed by Set-II as a speed test. The length of time allowed for Set-II can be varied. A working period of about 40 minutes usually gives the most satisfactory distribution of scores.

Intellectual efficiency depends upon a person’s physical and mental health as well as upon his inborn capacity. Familiarity with a test situation and practice in the method of working also increase the efficiency of a person’s work. The more tests are used to select people for course of study or to direct them into familiarize themselves beforehand with the tests employed.
Methodology of the study

To make this possible, Set-I and Set-II of the Advance Progressive Matrices have been printed in separate books.

Set-I covers all the intellectual process covered by the Standard Progressive Matrices Sets A, B, C, D & E. With adults it can be used as a short 10-minutes test. It also used as a practice test before starting Set-II. If it is thought desirable, Set-I can be circulated to people in charge of preparing candidates for an examination at which Set-II will be given as an Intellectual efficiency. By doing so, for all practical purposes, the effects of familiarity and practice upon a person’s speed of work can be equalized. The time limit of Set-II was 40 minutes.

Set-II provides a means of assessing all the analytical and integral operations involved in the higher thought processes and differentiates clearly between people of superior intellectual ability.

Reliability and Validity of Raven’s Advance Progressive Matrices Test

The RAPMT test is a standardized non-verbal intelligence test to aware the reliability and Foulds carried out psychological validity of the scale, an experimental survey. His technique has been stated below in brief.

Progressive Matrices Sets I and II were given to selected groups of people. The researcher to the students explained the test. After the short pause, Set-II has given with a time limit of 40 minutes. Retest was conducted after interval of 6 or 8 weeks on the same sample group. Findings of Set-I & Set-II were shown in table- 5.2

<table>
<thead>
<tr>
<th>Age</th>
<th>No. of Students</th>
<th>1st Set Test</th>
<th>2nd Set Test</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 yr.+</td>
<td>243</td>
<td>Mean 20.06</td>
<td>Mean 25.59</td>
<td>0.91</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SD 8.95</td>
<td>SD 9.83</td>
<td></td>
</tr>
</tbody>
</table>

It is clear from the above findings that the test has the high retest reliability of 0.91. As the test is highly reliable and the coefficient is greater than 0.88, it was also considered the test has the psychological validity.
Scoring Key

Answer-sheets and scorings keys were available with the test booklets, Set-I consists of 12 items and Set-II consists of 36 items. One mark was allotted for each response. So the full marks of Set-II were 36. No mark was allotted for a wrong answer. The final form of the test has been presented in Appendix-L.

5.12 Procedure of the Study

The investigator, with the co-operation of the authorities of educational institutions, selected for conducting the study fixed up the programme for experimentation and administering the tools. The investigator himself in this regard went to the institution and discusses the objective of the study of the respective teachers. They were ready to extend their whole-hearted co-operation to the investigator for conducting the study at their institutions. The investigator also requested the Headmaster to fix up the programme in such a way so as to minimize the administrative hazards of the institutions. They are also requested to allot two early periods for administering tools.

A total of five periods of forty-five minutes each was required for administering Entry Level Test in English (ELTE) and the non-verbal Intelligence Test (RAPMT). Before administering any of the tests one period was required to make rapport with the students of each educational institution. For administration of Intelligence test two periods were required and another two periods were required for Entry Level Test in English. The institution authorities were requested to allot the periods accordingly. They were also requested to inform the programme to the students of the respective classes, prior to the date of administration of tools. The procedure and system of administration of tools were maintained uniformly in all the selected institutions.

Points considered for the Administration of Tools

1. The periods selected for administration of tools were considered to be convenient to the students, investigator and educational institutions;

2. The students remained free from any fatigue and boredom in the above-mentioned periods;

3. The students were also free from physical and mental tension;
4. The tools were administered in the normal atmosphere;
5. Students’ mental conditions were normal;
6. Special care was taken for all the students as per pre-scheduled programme;
7. Students’ attendance was carefully maintained;
8. Absent students were marked carefully;
9. Code numbers were allotted to indicate each of the students;
10. Administration of Entry Level Test in English (ELTE);
11. Administration of Intelligence Test Questionnaire (RAPMT) was administered after ELTE.

Establishing Rapport

Good communication is possible only when there exists a feeling of mutual goodwill between the individuals. The investigator had tried his best to give adequate attention to establish such an atmosphere before administering the tools.

Careful planning of Every Step

The investigator was particular in arranging the activities for administering tools. For each occasion he prepared a checklist beforehand about the activities.

Rehearsal for the Administration of Tools

The investigator conducted a rehearsal for the administration of tools with a few students outside the sample. Their reaction after the administration of tools helped the investigator in overcoming possible lapses and avoiding weakness of the procedure.

5.13 Administration of Entry Level Test in English (ELTE)

The investigator took special attention to see that each student in the class could see, hear and do their activities. The investigator took care of proper light, sitting arrangement and any special physical disabilities to the students. Three periods were allotted for administering ELTE.
### Table -5.3 Programme of Entry Level Test in English (ELTE)

<table>
<thead>
<tr>
<th></th>
<th>For verbal Instruction and test description</th>
<th>Distribution of test booklet with answer sheet</th>
<th>For answering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time allotted</td>
<td>10 Mins.</td>
<td>5 Mins.</td>
<td>1Hr. 30 Mins.</td>
</tr>
</tbody>
</table>

### Materials Required

*For Investigator*

i) One set of instruction for administration,

ii) One clock,

iii) One ELTE Booklet,

iv) One Evaluation Sheet.

*For each student*

One ELTE Booklet with answer sheet.

*Instruction to Students*

After the distribution of test materials, the following instructions were given to the students:

1. For this test a test booklet with an answer sheet were supplied to you to mark all your answers.

2. No marks to be made in the test booklet.

3. Remember all your answers would be made on the answer sheet.

4. Before giving permission do not open the test booklet.

### 5.14 Administration of Raven’s Advance Progressive Matrices Test (RAPMT) Set-II

The investigator took special attention to see that each student in the class could see, hear and do their activities. The investigator took care of proper light, sitting arrangement and any special physical disabilities to the students.

RAPMT scale was administered on the sample as per prefixed schedule. Two periods were allotted for administering Set II of RAPMT.
Table -5.4 Programme of Time Schedule of RAPMT

<table>
<thead>
<tr>
<th>Time allotted</th>
<th>For verbal Instruction and test description</th>
<th>Distribution of test booklet with answer sheet</th>
<th>For Set II answering</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Mins.</td>
<td></td>
<td>5 Mins.</td>
<td>40 Mins.</td>
</tr>
</tbody>
</table>

Materials Required

For Investigator

i) One set of instruction for administration,

ii) One clock,

iii) One Set I of RAMPT Booklet,

iv) One Set I of RAMPT answer sheet.

For each student

i) One Set I of RAMPT answer sheet.

ii) One Set I of RAMPT Booklet,

iii) One pencil.

Instruction to Students

1. For this test, an answer-sheet is supplied to you to mark all your answers.

2. No marks to be made in the test booklet.

3. Remember all your answers would be made on the answer sheet.

4. Before giving permission do not open the test booklet.

5.15 Development of Learning Materials, Administration of Achievement Test & Retention Test

The study was conducted to estimate the relative effectiveness of two teaching models in case of teaching English at the Secondary level. Generally the prescribed text book *Learning English* is used in teaching of Class IX in West Bengal as an instructional material. But text book are not at all sufficient as instructional material for teaching through specific models to increase the output of instruction. Under this situation it was necessary to develop appropriate instructional materials for models selected for the study. The researcher developed two different sets of instructional materials on the selected content of English.
Methodology of the study

Each set comprise three Lesson Plans according to these method (DM, GTM & FCM) which was selected by the researcher for the present study. The researcher selected the poem ‘The Daffodils’ and the prose ‘The Importance of Jute’ for this study. These content units were selected from the syllabus of English prescribed by West Bengal Board of Secondary Education. To make the learning materials effective for teaching-learning situation, following steps were undertaken.

i) Breaking into sub units on the selected contents,

ii) Identification of learning elements of different sub-units,

iii) Arrangements of learning elements in sequential order,

iv) Presentation of learning elements before the subject experts,

v) Preparation of instructional materials on the basis of learning elements to different models,

vi) Presentation of instructional materials before the experts in this field for necessary modification of materials, if any,

vii) Modification of instructional materials on the basis of experts’ suggestions,

viii) Try out of instructional materials on a group of students parallel to the sample, to verify the necessary conditions of materials,

ix) The materials were again presented before the same group of experts to estimate the content validity,

x) Instructional materials were finalized on the basis try-out results and suggestions of experts.

Considering the above steps, the researcher prepared those Lesson Plans to teach the selected sample in the prescribed class. In the beginning, the students were given orientation in the procedure to be followed for studying through models of the Direct Method, the Grammar Translation Method and the Functional Communicative Approach. Having all the lessons preparing with different models of teaching to the students, Achievement Test of that particular lesson was administered and scored. After four weeks of the achievement test Retention Test was conducted on the same lesson and the marks obtained by the treatment group was scored.
5.17 Collection of Data

Four sets of scores were collected in the study according to the respective manuals/norms of the test. In case of Entry Level Test in English, the response sheets of the sample group were collected, checked and scrutinized. Selected response sheets are analysed and scoring was done with the help of scoring key.

A non-verbal intelligence test administered to estimate the non verbal ability of the selected samples. The test was used to avoid the cultural effect on different group of students. Collected response sheets of intelligence test were analysed on the basis of pre-determined answer key. Collected scores were taken intelligence test scores for the selected sample. The response sheets of the immediate achievement test and retention test of the learnt subject matter through the method $S_1, S_2$ & $S_3$ in respect of all the students were scored with the help of marking scheme. The test score were organized and tabulated for further analysis.
References


