CHAPTER - IV

METHODOLOGY
# CHAPTER IV  METHODOLOGY

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CHAPTER IV

METHODOLOGY

INTRODUCTION

"Research is a systematic approach to finding answers to questions" (Hatch and Farhady, 1982). The answers may be general and abstract as is often the case in basic research, or specific and concrete as is often the case in applied research. The Second Language Acquisition (SLA) field consists of a varied inventory of methodologies with which to deal with questions. In the prototypical qualitative methodology, the researchers do not set out to test hypotheses but observe what is present with their focus, and consequently the data, free to vary during the course of the observation. In the quantitative study, on the other hand, they test hypotheses through objective instruments and appropriate statistical analyses. As Larsen-Freeman and Long (1991) point out, the attributes of the qualitative and quantitative paradigms are flexible and are not logically linked to one methodology.

On a different plane, the SLA studies can be classified under two distinct categories: longitudinal and cross-sectional studies. The longitudinal approach typically involves observing the development of linguistic performance over a span of time. In the cross-sectional approach, the linguistic performance of a larger number of subjects is studied at only one session. "A combination of longitudinal and cross-sectional approaches is also possible" (Adams, 1978). Data collected at any one time constitute a cross-sectional study, while all the data for a particular group provide a longitudinal view. The cross-sectional or longitudinal approach should not be associated exclusively with either qualitative or quantitative paradigm. "The point is that what is important for researchers is not the choice of a priori paradigms or even methodologies, but rather to be clear on what the purpose of the study is and to match that purpose with the attributes most likely to accomplish it. Put another way, the methodological design should be determined by the research question" (Larsen-Freeman and Long, ibid, p.14).
Introspection, Participant Observation, Non-participant Observation, Focused Description, Pre-experiment, Quasi-experiment and Experiment are among the commonly used methodologies in the SLA studies. Each methodology has its strengths and its limitations.

In introspection, learners examine their own behaviour but the question is whether learners' reports of what are experiencing truly represent what is transpiring within them (Seliger, 1983).

In participant observation, the researcher takes part in the activities he is studying and takes copious notes on whatever he observes and experiences. In non-participant observation, as the name implies, the researcher observes activities without engaging in them directly. It is seriously questioned whether data gathered in such observational studies are in fact natural and unbiased (Tarone, 1979).

Descriptive studies, according to Van Dalen (in Cook, 1965), "classify, order and correlate data seeking to describe relationships that are discoverable in phenomena themselves" (p.39). An advantage of these studies is that the researchers' task is limited: they are not burdened with trying to explain all aspects of second language acquisition simultaneously. Another advantage is that the focus of the study does not shift according to the fancies of the researchers. One disadvantage, however, is that this type of research ignores the fact that SLA is a multi-dimensional phenomenon.

The next type of methodology is pre-experimental and it is termed so simply because it fails to meet the inevitable criteria of true experiments: the presence of experimental and control groups, and random assignment of subjects to groups. In quasi-experimental designs, one of the two criteria of the experimental design is met, thus eliminating one of the two sources of invalidity. Quasi-experimental designs do not require random assignment of subjects to groups. In true experiments, however, both these criteria are met. The basic premise of these experiments is that all factors save one are held constant. If one group of subjects is treated in one fashion and another in a different fashion, and there are no other factors influencing the two groups differentially, a cause-effect relationship between treatment and consequence can be determined. Besides, a properly controlled experiment allows generalization of findings beyond what
were obtained from the sample. On the other hand, one of the disadvantages in using an experimental methodology is unnatural manipulation of variables.

Considering the strengths and the limitations of extant methodologies, it should be obvious that choosing between the qualitative and quantitative paradigms or among the methodologies does not matter, but designing a research methodology which possesses the optional combination of attributes to address the research question under consideration is always desirable.

Taking all these factors into consideration, the present study made use of 'pre-test post-test non-equated groups design', reasons for which are explained in the latter part of this chapter.

In this chapter, an attempt is made to describe the methodology adopted in researching the problem of the study and the procedure adopted to this effect. The description of the approach and the procedure of the experiment are preceded by an explanation on the development and validation of the listening comprehension packages and followed by a description of the establishment of reliability and validity of the different tools used in this study.

**AUDIO-VIDEO PROGRAMMES AVAILED AND THEIR VALIDATION**

As the focus of this study was on the effectiveness of audio-video intervention in developing the listening comprehension skills of students learning English at the higher secondary stage, audio as well as video programmes pertaining to acquisition of English as a second language were inevitable in conducting the study. Over recent years, recorded material in audio and video cassettes has generally formed the basis of most listening comprehension work. In using recorded material, a much wider variety of listening experiences can be brought to the pupils. They might listen to a speech, a news report and a conversation between two people. They can hear different speakers, with different accents, speaking at different speeds. It provides opportunities for students to hear native speakers of English and, sometimes, fluent non-native speakers.

The use of video recordings enables teachers to point out the many visual clues which listeners use in understanding what they hear. For listening practice, video seems to combine most of the advantages of using audio recordings with the main advantage of
live presentation, i.e. the speaker and the immediate context in which he/she is speaking can be seen.

A mixture of 'live' and recorded material provides the best mix of listening for students, and brings them the range of listening experience which is so important in developing their skills. According to Underwood (1989), “video recordings have an important part to play in listening work, but they should not be used to the exclusion of material spoken by teachers and other speakers, nor recorded material from audio tapes/cassettes.”

A brief resume of audio-video programmes availed in the study

The audio and video programmes used in this study were both syllabus-based and syllabus-free. The syllabus in the teaching of English as a language for the higher secondary course in the state of Tamil Nadu states the following as the objectives as far as developing of listening skills are concerned:

“Listening:

The course will enable the students to

(i) listen with fair comprehension to English, spoken clearly about ordinary topics;
(ii) comprehend English, spoken clearly about specialist topic of which the vocabulary is known;
(iii) develop an interest in listening to speeches in English and viewing programmes of educative value in English.”

Apart from these stated objectives, the syllabus calls for the use of technological materials in teaching/learning situations in the following explicit terms:

“Technological Materials:

Suitable software such as pre-recorded audio and video cassettes can be had. Live as well as recorded listening to All India Radio, Doordarshan and BBC news bulletins and educational programmes will be a boon to the students at this stage.”
The syllabus also incorporates an evaluation scheme in which the students are assessed for aural-oral and communicative skills for 20 marks. The testing of aural-oral skills includes listening to a news item, a brief lecture, talk or conversation for comprehension.

Based on these norms, 14 programmes comprising news items, brief lectures (talks) and conversations were used in the study, of which 10 were recordings 'off-air' from the newscasts and educational programmes of All India Radio, Doordarshan, BBC and other TV channels and 4 were researcher-prepared presentation, the details of which are given in the Table 1. In order to sustain the element of interest, many syllabus-free programmes were also included.

**TABLE 1 - DESCRIPTION OF THE AUDIO-VIDEO PROGRAMMES AVAILED IN THE STUDY**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Contents</th>
<th>Format Type</th>
<th>Duration (in minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>News-items</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Researcher-prepared presentation</td>
<td>SB - AO - NAM</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>AIR</td>
<td>SF - AO - AM</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>DD</td>
<td>SF - AV - AM</td>
<td>15</td>
</tr>
<tr>
<td>4.</td>
<td>BBC</td>
<td>SF - AO - AM</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>Star News</td>
<td>SF - AV - AM</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Brief Lectures/Talks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Researcher-prepared presentation</td>
<td>SB - AO - NAM</td>
<td>2</td>
</tr>
<tr>
<td>7.</td>
<td>AIR</td>
<td>SF - AO - AM</td>
<td>3</td>
</tr>
<tr>
<td>8.</td>
<td>DD</td>
<td>SF - AV - AM</td>
<td>5</td>
</tr>
<tr>
<td>9.</td>
<td>Discovery Channel</td>
<td>SF - AV - AM</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Conversations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Researcher-prepared presentation</td>
<td>SB - AO - NAM</td>
<td>3</td>
</tr>
<tr>
<td>11.</td>
<td>Researcher-prepared presentation</td>
<td>SB - AO - NAM</td>
<td>2</td>
</tr>
<tr>
<td>12.</td>
<td>AIR</td>
<td>SF - AO - AM</td>
<td>5</td>
</tr>
<tr>
<td>13.</td>
<td>DD</td>
<td>SF - AV - AM</td>
<td>5</td>
</tr>
<tr>
<td>14.</td>
<td>Star</td>
<td>SF - AV - AM</td>
<td>5</td>
</tr>
</tbody>
</table>

SB - Syllabus-based      SF - Syllabus-free
AO - Audio only          AV - Audio-video
AM - Authentic material  NAM - Near-authentic material
AIR - All India Radio    DD - Doordarshan
BBC - British Broadcasting Corporation

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From the Table 1, it is known that 5 programmes were news bulletins of which 4 were authentic and 1 near-authentic. The duration of these programmes was found to be 40 minutes which constituted 53% of all the audio and the audio-video programmes of this kind constituted 49% and 4% respectively. Among the news bulletins, 2 programmes were audio bulletins and 3 audio-video bulletins, accounting for 17% and 36% respectively of the total programmes (in duration).

From this Table, it is also known that 4 programmes were talks of which 3 were authentic and 1 near-authentic. The duration of these programmes was in the order of 15 minutes which constituted 20% of the total programmes used in the study. The authentic and near-authentic programmes of talks accounted for 3% and 17% respectively. Of this kind, 2 were audio programmes and 2 audio-video programmes, taking up 7% and 13% respectively (in duration).

It is further found that 5 programmes were conversations of which 3 were authentic and 2 near-authentic. The duration of this category of programmes was found to be 20 minutes which accounted for 27% of all the programmes. The authentic and near-authentic programmes of conversations constituted 20% and 7% respectively. There were 2 audio programmes and 2 audio-video programmes accounting for 13% and 14% respectively (in duration).

It is again known from the Table that there were 4 syllabus-based and 10 syllabus-free programmes, of which 87% and 13% accounted for authentic and near-authentic programmes.

The duration of the programmes ranged from 2 minutes to 15 minutes. The average duration is found to be 5.38 minutes. An attempt was made to analyse the contents of all the audio and audio-video programmes, the details of which are given in the Appendix 2.

Apart from the authentic programmes (AIR, DD and BBC news bulletins and educational programmes of popular TV channels) and the near-authentic programmes (imitations of news bulletins and scripted conversations recorded by the researcher), it was felt that second language acquisition warranted a need for the students at the higher secondary stage to be introduced to segmental and suprasegmental features of English. These features include minimal pairs with contrasting phonemes, consonant clusters at
the initial and final positions, stress and intonation. A range of listening experience based
on these features would enable the early L2 learners of English to cope with authentic or
near-authentic programmes in English. Hence, the researcher developed an instructional
package - syllabus-based in its content - and recorded the listening practice units in
audio-cassettes, the details of which are given in the Table 2.

**TABLE 2 - DESCRIPTION OF THE AUDIO INSTRUCTIONAL PACKAGE
AVAILED IN THE STUDY**

<table>
<thead>
<tr>
<th>Unit No.</th>
<th>CONTENTS</th>
<th>Duration (in minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 11</td>
<td>Vowel Sounds (Vowels and Diphthongs)</td>
<td>33</td>
</tr>
<tr>
<td>12 to 21</td>
<td>Consonant Sounds</td>
<td>30</td>
</tr>
<tr>
<td>22 &amp; 23</td>
<td>Initial Consonant Clusters</td>
<td>5</td>
</tr>
<tr>
<td>24 to 27</td>
<td>Final Consonant Clusters</td>
<td>12</td>
</tr>
<tr>
<td>28 &amp; 29</td>
<td>Word Stress</td>
<td>10</td>
</tr>
<tr>
<td>30 to 34</td>
<td>Sentence Stress</td>
<td>25</td>
</tr>
<tr>
<td>35</td>
<td>Pause</td>
<td>25</td>
</tr>
<tr>
<td>36 to 40</td>
<td>Falling Intonation</td>
<td>25</td>
</tr>
<tr>
<td>41 to 45</td>
<td>Rising Intonation</td>
<td>25</td>
</tr>
<tr>
<td>46</td>
<td>Falling-Rising Intonation</td>
<td>5</td>
</tr>
<tr>
<td>47</td>
<td>Question-tags</td>
<td>5</td>
</tr>
<tr>
<td>48</td>
<td>Dialogues</td>
<td>10</td>
</tr>
<tr>
<td>49</td>
<td>Passages for listening practice</td>
<td>10</td>
</tr>
<tr>
<td>50</td>
<td>Stress shift</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>230</strong></td>
</tr>
</tbody>
</table>

From the Table 2, it is found that 21 units were related to phonemic level items
and 8 units to word level items. The duration of these units was 90 minutes. Even though
phonemes and words were given prominence in these units, listening experience were
provided in proper contexts comprising either sentences in isolation or connected speech.
The remaining 21 units deal with such phonological features as sentence stress, stress
shift and intonation and were found to be 140 minutes in duration. The average duration
of a unit in this instructional package was 4.6 minutes. An attempt was made to analyse
the contents of this package, the details of which are given in the Appendix 2.
DESIGNING THE INSTRUCTIONAL PACKAGE

The conceptual base behind the design and the development of the instructional package used in this study is explained in this part of the Chapter. Educational software can be usually divided into four categories, viz. drill, tutorial, simulation and game. To keep the overall scope under control and to aim at what the students unfamiliar to instructional packages in audio format can reasonably comprehend, the package was limited to drills and tutorials. A brief conceptual review on each of these types is given below.

**Drills**

Drill programmes are among the most prevalent examples of instructional packages. They are popular because of the following reasons.

(a) The school curriculum requires a lot of practice of students, especially in the beginning and the middle stages of acquiring a second language.

(b) Teachers are seldom able to provide sufficient practice opportunities for all their students.

(c) Drills in the form of recorded materials are not threatening to technophobic teachers. They clearly are not meant for teaching, so there is no fear that they might replace the teacher.

(d) Drills in pre-recorded version may make necessary but tedious learning more interesting and motivating.

(e) Media drills are superior to traditional ones in the sense that the former variety prevents the students from practising incorrect responses and arranges items in the same sequence each time.

**Characteristics of Drills**

The following are the characteristics of drill, programmes built into any educational software:

(a) Drills provide extensive practice opportunities.

(b) They may build speed and/or accuracy of response.

(c) They should adapt to the user.

(d) Drills can accept target areas causing difficulty.
Applications of Drills

Multiple discrimination, paired associate tasks and overlearning are the major applications of drill practice. In ‘multiple discrimination’, the students develop the ability to distinguish among items, persons or events and label each instance correctly. Identification of phonemes (both vowels and consonants) are examples in this regard. In ‘paired associate tasks’, the students create meaningful links among items, ideas or responses to stimuli. They can form links between kinds of sentences and intonation patterns; they can comprehend stress shift which occurs according to forms or semantic association. In ‘overlearning’, the students learn anything so well that it becomes an automatic response. The overlearning helps them to a greater extent in communicative tasks in the second language.

Tutorials

“Tutorials,” according to Lockard (1992), “are intended to assume the major instructional responsibility, perhaps similar to what a live tutor might do.” The characteristics of tutorials in an educational software are that they presume no prior knowledge of the major content and they may be used to introduce new content. Tutorials present information and then guide the student to apply it. Though broadly applicable to factual information, they are especially appropriate for teaching procedures, concepts and principles.

The design cycle of the package

Having considered the two important categories of instructional design which helped to a large extent in developing the package used in this study, key factors which formed a five-phase model called ADDIE are discussed here. ADDIE is acronym for Analysis, Design, Development, Implementation and Evaluation and this approach was used in designing, developing and implementing the instructional package in listening comprehension used in this study.

Analysis

At the outset, the instructional problem which a software product could address is defined in precise terms. Then, the intended learners are identified clearly, taking into
consideration such factors as their age, ability level, motivation and prior knowledge. The objectives from the learner's perspective are to be stated specifying what he or she will gain from the experience. After this, the instructional strategy to be used is determined. At this point, media selection must be justified as the best solution for the problem at hand. Next, the content outline has to be developed in order to establish scope and sequence of the package. In addition to this, curriculum fit or usefulness of the units should be ascertained. The role of the teachers in preparing students to use the materials is also clarified. Anticipated delivery constraints are also identified at this stage.

**Design**

In the next stage, a general concept for the package is developed: broadly conceived, it decides what the software will be like on completion. Gagne-Briggs' theory is that nine distinct events of instruction must be present in any complete learning experience. The experience is weakened, and its efficiency threatened, by the absence of one or more events. Thus, one can improve learning experience by providing explicitly for all the events of instruction as given below:-

1. Gain attention /motivate
2. Present objective(s)
3. Recall prerequisites
4. Present stimuli
5. Guide learning
6. Require performance
7. Provide feedback
8. Assess achievement
9. Promote retention/transfer.

Structure charts for the general organisation of the software and flow charts for programme logic are developed. All the units are designed accordingly. Support materials are also planned side by side.

**Development**

Suitable materials are now produced in accordance with the organization and logic presented in the structure charts and the flowcharts. Instructions for the use of materials are also written. Support materials are produced. A pilot test using a few members of the target sample is conducted. How much learning occurs is measured and at the same time points of confusion, operating difficulties and approaches that do
Implementation

This is the actual try-out stage of the package with the intended group of students.

Evaluation

The attainment of objectives is assessed with the help of proper tools. Based on the findings, the package can be again revised as required. To design and develop any piece of instructional package, the designer must have a thorough concept of the end product. He or she must know what the package will do. If there are discrepancies between what was intended to happen and what happened, if the student achievement falls short on one or more of the objectives and if the evaluation data indicate shortcomings in instructional methods and media, now is the time to go back to the faulty part of the plan and revise it. Hence evaluation is not the end of instruction. It is the starting point of the next and continuing cycle of the systematic ADDIE model for effective use of instructional media.

The instructional package availed in this study was planned and presented using the concepts and the procedures described in the foregoing paragraphs. The instructional objectives of the programmes were also spelt out and are given in the Appendix 3. The ensuing technical concepts and procedures were followed not only in the validation of the instructional package but also in the evaluation of the audio-video programmes used in the study.

ASSESSING STUDENT ACHIEVEMENT IN LISTENING COMPREHENSION

Achievement tests are used to provide information for the evaluation of success in achieving selected instructional objectives. "Any test that measures the attainments or learning is called an Achievement Test". Acceptable achievement tests must be available and used appropriately for measuring degrees of student achievement. It is the purpose of this part of the chapter to describe the principles on the basis of which
The achievement test used in this study was built and to appraise in general the validity and the reliability of the test.

The formal achievement tests and standardised achievement tests are widely administered. Informal tests are teacher-made tests. The teacher makes them for his or her own class in order to satisfy his or her own purposes and these tests are designed to fit a local situation. Standardised tests are typically constructed by a group of individuals and are published and sold commercially. Though the content of a standardized test is carefully designed, the questions carefully phrased, and extensive pre-testing conducted, the test is not designed for a local situation.

In order to assess student achievement in listening comprehension in English, an achievement test was constructed. This test was designed to fulfil the requirements of the local situation, taking into consideration the linguistic competence of rural higher secondary students who study English as a second language. A pilot study was conducted for the purpose of constructing and validating the achievement test. The procedure for its construction and validation is given in the following pages.

The Pilot Study

The objectives of the pilot study in constructing the achievement test were as follows:

1. To determine the suitability or otherwise of the various test items with reference to both form and content in measuring student achievement in listening comprehension in English.

2. To decide on the duration of the achievement test.

3. To find out if all the students understand the instructions given in the test.

4. To select the best items for the final study which could discriminate high scores from low scores and which could bring out the difficulties of the students in responding to the questions.

The pilot test was administered in Government Higher Secondary School, Arachalur (Erode) for 100 students of Standard XI. The answer-scripts were valued and analysed in order to select the best items for the final study. The procedure followed in the Item Analysis is given in the following pages.
Item Analysis

The responses of the students to the objective test items were studied in order to determine the discriminating power of the test items. Soon after the test was administered and scored, the response sheets were analysed item by item. How difficult was an item for the group tested and how well did it distinguish between the more abled and the less abled students were nearly independent of each other except in cases where a very easy or a very difficult item could not discriminate well.

The steps followed in the Item Analysis are as given below:

1. Scoring the response sheets,
2. Arranging the response sheets in the order of scores,
3. Dividing the response sheets into three piles:
   (i) 27% from the top end of the order (the upper group)
   (ii) 27% from the bottom end of the order (the lower group) and
   (iii) 46% of the middle order response sheets (The response sheets of this group were ignored in item analysis),
4. Counting the frequencies for the following with regard to each item and for each group:
   (i) Number of students who responded to a certain item wrongly and
   (ii) Number of students who omitted that item,
1. Converting the frequencies into percentage,
2. computing the difficulty level of each item using the formula,
   \[ \text{Difficulty Level} = \frac{PU + PL}{2} \]
   where PU means the percentage of the upper group and PL means the percentage of the lower group,
3. Computing the discriminating power for each item using the formula,
   \[ \text{Discriminating power} = PU - PL, \] and
4. Selecting the required items keeping in mind the difficulty level and the discriminating power of the items.

The items with the difficulty level ranging from 40 to 70 and the discriminating power above 15 were included in the final test. The items which have more PL from the PU value were also eliminated. The distribution of PU, PL, Difficulty level and the Discriminating power of each of the items in the pilot test are given in the Appendix 4.
The blue print of the pilot study test paper and of the final study test paper are given in the following tables:

**TABLE 3: BLUE PRINT OF THE PILOT STUDY TEST PAPER**

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Contents</th>
<th>Local Listening Comprehension</th>
<th>Global Listening Comprehension</th>
<th>No. of Items</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Phonemes - Vowels</td>
<td>10 (1)</td>
<td>---</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2.</td>
<td>Phonemes Consonants</td>
<td>10 (1)</td>
<td>---</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>Semantic Association of Words</td>
<td>10 (2)</td>
<td>---</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>4.</td>
<td>Contextual Fixation of Related Words</td>
<td>10 (5)</td>
<td>---</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>5.</td>
<td>Comprehensible Input</td>
<td>10 (1)</td>
<td>---</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>6.</td>
<td>Picture Cues</td>
<td>10 (1)</td>
<td>---</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>7.</td>
<td>Visuals</td>
<td>1 (2)</td>
<td>---</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8.</td>
<td>Focus on Meaning</td>
<td>4 (2)</td>
<td>---</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td><strong>Audio Mode</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Conversation</td>
<td>---</td>
<td>10 (2)</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>10</td>
<td>News items</td>
<td>---</td>
<td>10 (2)</td>
<td>10</td>
<td>20</td>
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<tr>
<td></td>
<td><strong>Video Mode</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>News items</td>
<td>---</td>
<td>10 (2)</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>Short Talks</td>
<td>---</td>
<td>10 (2)</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>65</td>
<td>40</td>
<td>105</td>
<td>200</td>
</tr>
</tbody>
</table>

Note: The numbers indicate the number of items and those in the parenthesis indicate the scores allotted to each item (weightage).
### TABLE 4 BLUE PRINT OF THE FINAL STUDY TEST PAPER

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Contents</th>
<th>Local Listening Comprehension</th>
<th>Global Listening Comprehension</th>
<th>No.of Items</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Phonemes - Vowels</td>
<td>10 (1)</td>
<td>---</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>2.</td>
<td>Phonemes Consonants</td>
<td>-</td>
<td>10 (1)</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>3.</td>
<td>Semantic Association of Words</td>
<td>5 (2)</td>
<td>---</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>4.</td>
<td>Contextual Fixation of Related Words</td>
<td>5 (5)</td>
<td>---</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>5.</td>
<td>Comprehensible Input</td>
<td>10 (1)</td>
<td>---</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>6.</td>
<td>Picture Cues</td>
<td>5 (1)</td>
<td>---</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>7.</td>
<td>Visuals</td>
<td>1 (2)</td>
<td>---</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8.</td>
<td>Focus on Meaning</td>
<td>4 (2)</td>
<td>---</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

**Audio Mode**

| 9     | Conversation                          | ---                          | 5 (2)                         | 5           | 10          |
| 10    | News items                            | ---                          | 5 (2)                         | 5           | 10          |

**Video Mode**

| 11    | News items                            | ---                          | 5 (2)                         | 5           | 10          |
| 12    | Short Talks                           | ---                          | 5 (2)                         | 5           | 10          |

**Total**

| 50    | 20                                      | 70                            | 120                            |

Note: The numbers indicate the number of items and those in the parenthesis indicate the scores allotted to each item (weightage).

### CATEGORIZATION OF LISTENING COMPREHENSION SKILLS

A full-scale taxonomy of all the different kinds of listening activities, together with a statistical analysis of their relative frequencies is not yet available. It is, however, possible to list some instances of the types of listening we might reasonably expect from the educated classes in a developing country. Such a list is given below:

1. Listening to news-bulletins and announcements on the radio and the television.
2. Listening to recorded songs.
3. Listening to speeches.
4. Watching films or television programmes.
5. Listening to announcements at railway stations, bus stations, airports, get-togethers, etc.
6. Attending lessons.
7. Receiving instructions.
10. Making / attending telephone calls.
11. Getting professional advice.
12. Chatting at get-together parties.
13. Taking part in interviews.
15. Making conversations / listening to conversations.

Though the list is not exhaustive, it is fairly representative of real-life listening which involves aural comprehension as an essential component of the communicative situation.

We listen to something with some idea of what we are going to hear. Usually, we have some pre-conceived idea of the content, persons involved and formality level of such discourses. Richards (1983) calls this "script competence", which is the knowledge we possess in advance about the context of the discourse. Here, our expectations are linked to our purpose.

In many listening situations, the listener is expected to give overt, immediate response, which may be either verbal or non-verbal. These situations are normally rich in environmental clues in the form of the speaker's facial expression, posture, gesture, eye direction, proximity and tone of voice. The kind of emotional involvement of the speaker, the kind of relationship existing between the speaker and his listeners and the prevailing mood also afford the listener significant assistance in comprehending the sense of what is spoken.

Another important trait of real-life listening is its shortness. A listening situation comprises a series of chunks. The normal pattern of a chunk is a short period of listening followed by the listener-response. Even in uninterrupted discussions, there are chunks caused by the physical movement of the speaker, pause, audience reaction and change of environmental clues. Redundant utterances like repetitions, false starts, re-phrasings, self-corrections, elaborations and such meaningless additions as 'I mean' or 'You know' also cause chunks. External disturbances and temporary lack of attention on the part of the listener are other factors which cause chunks. All the aforesaid factors either help the listener to follow the speaker by providing an abundance of extra information and time to think or hinder comprehension.
The listener has to cope with the marked differences between the formal and colloquial varieties. The sounds a listener absorbs during a normal conversation bear only a partial resemblance to a transcript in normal orthography, which in its turn bears only a partial resemblance to a corresponding version in formal prose. The difference in the first stage one of pronunciation; in the second in actual choice of words.

There is also a distinct difference between the auditory effect of spoken prose and that of informal conversation. The former variety is marked by a fairly even pace, volume and pitch. On the other hand, the better variety is jerky and has frequent pauses and overlaps. It goes intermittently faster and slower, louder and softer, higher and lower. Hesitation, interruptions, exclamations, emotional reactions of surprise, irritation or amusement occur in natural speech.

The gap between the process of listening and understanding remains to be bridged with the help of a series of exercises which may be effective in the classroom. These exercises should aim at enabling the listener to grasp the meaning of each chunk of discourse beyond the omission of certain vowels and consonants. The deletion of such element as auxiliaries and articles, the frequent use of coordinating conjunctions and cohesive devices, the presence of pauses and hesitations, the faster rates of delivery and the typical English accentual patterns and intonation. They should also consider the level of vocabulary, topic relevance, information content and coherence in each chunk as these factors also influence listening comprehension.

DEFINITION OF MICRO-SKILLS

In order that each chunk of a discourse is to be understood, opportunities should be provided to the listener to acquire specific micro-skills. If particular micro-skills in listening comprehension are developed, the listener is enabled to comprehend discrete items in a continuous speech, the local listening comprehension of which would in turn enable him / her to understand the overall meaning of the discourse. In other words, the listener develops his / her global listening comprehension as he / she develops the micro-skills of listening (Blandly & Stokes, 1991).
Keeping the higher secondary (HSC) syllabus as far as teaching listening comprehension is concerned in focus, the following micro-skills have been identified as essential sub-skills required for local listening comprehension at the HSC stage.

(i) Ability to discriminate among the distinctive vowels of English.
(ii) Ability to discriminate among the distinctive consonants of English.
(iii) Ability to guess the meaning of words listened to.
(iv) Ability to fix the related words in their proper contexts.
(v) Ability to make the real-world knowledge and experiences in understanding the ideas.
(vi) Ability to infer situations and patterns from the given clues.
(vii) Ability to identify paralinguistic and other clues to arrive at meanings.
(viii) Ability to detect key-words.

The said syllabus calls for development of listening comprehension among higher secondary students as and when they are involved in listening as a part of social interaction (e.g. conversational listening), listening for information (e.g. announcements), academic listening (e.g. talks or listening for pleasure (e.g. radio and television). If the students are unable to develop the retired micro-skills of local listening comprehension, thereby facilitating them to understand, to a great extent, the chunks of a discourse, then the following micro-skills would be required of them for developing global listening comprehension:

1. Ability to detect attitude of speaker toward subject matter.
2. Ability to identify relationships among units within discourse.
3. Ability to make use of facial, paralinguistic and other clues to arrive at meanings.
4. Ability to identify purpose, scope and topic of the lecture.

The difference between both the aforesaid sets of micro-skills is that the former assists the listener in acquiring and strengthening the basic discrete items required in any listening situation and the latter aims at strengthening certain micro-skills required for a few specific forms of discourse. An instructional package in listening comprehension was developed by the investigator on the lines of the bipartite arrangement of the micro-skills as stipulated by the higher secondary syllabus. While section A of the package has been intended to provide listening practice in local listening comprehension, the other
sections (B and C) attempt at developing global listening comprehension through audio and video respectively.

**PLANNING THE TEST PAPER**

Keeping the bifurcation of the spelt-out micro-skills and the avowed aims of developing the local listening comprehension and the global listening comprehension as warranted by the higher secondary syllabus in view, the test paper was designed in which the following items have been included.

**Item I - Discrimination of Vowels**

This is a discrete point item which aims at testing the ability of the listeners to discriminate among the distinctive sounds of the English vowels. Minimal pairs with the point of difference in vowels are listed in the stimulus sheet (e.g. *ship*/*sheep*). The test administrator either reads out this pair or picks out either of these words and reads it aloud (e.g. *ship* or *sheep*). The listeners have to decide whether the two words are the same (S) or different (D). They shall write S or D in the space provided in their response sheets. Similar items, ten in number find place in the final version of the test.

**Item II - Discrimination of Consonants**

This is also a discrete point item in which the ability of the listener to discriminate among the distinctive sounds of consonants is tested. A sentence containing a minimal pair with the point of difference in a consonant is given in the response sheet. The speaker reads out the sentence using only one of the pairs. The listeners encircle the word they hear (e.g. The *bet*/*bed* must have cost you a lot of money). There are ten such items included in the final test paper.

**Item III - Semantic Association of Words**

This is yet another discrete point item in which the ability of the listeners to guess the meaning of a word listened to is tested. The speaker reads out a word twice from the list provided in the stimulus sheet. The listeners write it down in their response sheets and then look at the three meanings given. They are required to choose the correct meaning. Five such items are included in the final test paper.
**Item IV - Contextual Fixation of Related Words**

This item is an integrative one calling for the ability of the listeners to fix the word they have listened to in the right context and their ability to guess the words which are similar to the sound of the word they have listened to and to fix these related words in other given contexts. The speaker reads out the word from the stimulus sheet twice. The listeners write down this word in their response sheets. This word fits into one of the four given sentences. The listeners should also provide similar sounding words for the other three sentences. There are five such items in the final test paper.

**Item V - Comprehensible Input**

This is a limited response item in which the listeners' ability to make use of real-world knowledge and experience in understanding ideas is tested. In this true - false item, the speaker reads out a sentence which requires negotiation of meaning and which contains linguistic features a little beyond the listeners' current level of competence. There are ten such items in the final version of the test paper.

**Item VI - Picture Cues**

In this item, a set of five pictures are at first shown to listeners. These need not be a strong line relating the picture to each other. Sentences based on a single picture is read out. The listeners write down the letter of the appropriate picture for the sentence in their response sheets. Similarly, four more sentences are read out one after another. The ability of the listeners to infer situations and patterns from the given cues is tested here.

**Item VII - Visuals**

This is also a limited response item. In addition to pictures, simple charts or geometric figures are used to test the ability of the listeners to identify paralinguistic and other clues to arrive at meanings. The speaker reads out a statement containing clues so that the listener locate the matching figure from among a set of somewhat identical figures given in their response sheets. Only one such item is included in the final test paper.
**Item VIII - Focus on Meaning**

This is a multiple choice appropriate response item. The vocabulary level and the grammar of the item are kept in accordance with the present levels of the listeners. The aim is to measure their ability in detecting the key word in a particular sentence or a short dialogue. The administrator reads out a sentence or a dialogue followed by a simple question. The listeners find out the right meaning of that sentence or the right response to the question from among the set of three options provided in their response sheets. There are four such items in the final test.

Even though the aforesaid eight items were designed to test only one micro-skill each, in the order stated explicitly, as required for the development of local listening comprehension, an interplay of other sub-skills such as the ability to recognize the stress patterns, weak forms, rhythmic structure, intonation and pause cannot be refuted or ignored. However, the recognition of these suprasegmental phonetic features by the higher secondary students is beyond their capabilities and competence, an introduction to these features has been attempted in the instructional package so that the listeners could be benefitted at later stages.

**Item IX - Conversations (Audio)**

The aim of this item is to test the listeners' ability to detect the attitude of speaker towards the subject matter. A short dialogue of four or five minutes in pre-recorded audio cassettes followed by the Multiple Choice Objective Type (MCOT) questions remains central to this item. There are five MCOT questions in this item.

**Item X - Newscasts (Audio)**

This is another form of extended communication test in which radio news-bulletins are used to measure the global listening comprehension skill of the listeners. The MCOT questions which are based on the news-bulletins aim to measure the ability of the listeners to identify relationships among units within this form of discourse. For instance, the listeners are tested whether they have understood the major ideas, supporting ideas and examples, and whether they are able to arrive at generalization and hypotheses. There are five MCOT questions in this item too.
**Item XI - Newscasts (Video)**

As far as this item is concerned, the format and the aim are different from that of the previous item. While the format here is TV newscast, the MCOT pertaining to this item aim to test the ability of the students to make use of facial, paralinguistic and other clues to arrive at meanings. This item also has five MCOT questions.

**Item XII - Short Talks / Lectureettes (Video)**

A test of listening comprehension would not be complete without having items of extended oral communication. Students need to understand talks, lectures, radio and TV programmes (especially newscasts and conversations). Short lecture contexts, called lecturers in the form of actual pre-recorded talks provide fine opportunities for testing listening comprehension. Three to five minute-lecturetes are effective in this regard. While listening to these short talks, the students should be permitted to take notes. MCOT questions are then posed to them. This item tests the ability of the listeners to identify purpose, scope and topic of the lecture. There are five MCOT questions in this item too.

**ESTIMATION OF RELIABILITY AND VALIDITY OF THE TEST PAPER**

Reliability refers to the consistency of measurement, the extent to which the results are similar over different forms of the same instrument or occasions of data-collecting. The aim of developing reliable measures is to minimize the influence of chance or other variables unrelated to the intent of the measure. If an instrument is unreliable, the information obtained is ambiguous, inconsistent and meaningless. Hence, it is important for researchers to select and develop data-gathering procedure that will be highly reliable.

A test is said to be valid, if it measures what it purports to measure. The validity of the measures and thereby of the tool is lowered if the measures are contaminated by assessment of some other feature or trait besides the target. It is a judgment of appropriateness of a measure for specific inferences or decisions that result from the scores gathered or obtained. A test can therefore be valid in one situation and invalid in another. There are different types of validity depending both on what the scores measure and what for they do it, that is on the matter and the purpose of measurement.
Reliability of the Test in Listening Comprehension

In order to establish the reliability of the test paper in listening comprehension, the test-retest method was adopted. The same test was administered twice, first to the entire population of the sample and next, after a gap of three months, to 30% of the sample selected at random. An attempt was made to find out the correlation co-efficient between these two sets of scores. The value of r is found to be 0.785 and is significant at 0.01 level. Hence, it is concluded that the test paper in listening comprehension in English is highly reliable.

Validity of the Test in Listening Comprehension

To establish the validity of the test paper, an attempt was made to find out the correlation co-efficient between the achievement scores in English as measured by this Test in Listening Comprehension and the scholastic achievement of the students in English as measured by the S.S.L.C. Public Examination by Product moment correlation co-efficient method. The value of r is found to be 0.821 and is significant at 0.01 level. Hence it is concluded that the test has high validity.

PROCEDURE

Introduction to Experimental Research

Experimentation is the way of the science laboratory where certain stimuli, treatments or environmental conditions are deliberately and systematically manipulated and the observed effects controlled. The aim of this method is to discover and develop an organized body of knowledge. The method has also been successfully followed in such non-laboratory situations as the classroom where certain variables can be controlled to some degree. The purpose of these educational experiments is to predict events and to generalize the relationship among the variables so that the findings might be applied universally. An important element in this kind of research is that the investigator sets up conditions deliberately so that different groups of subjects undergo different experiences.
PRE-TEST POST-TEST NON-EQUIVALENT GROUPS DESIGN

Though it is difficult to have a true experimental design in a classroom setting (since the subjects are students who cannot be under the investigator’s constant control and observation throughout the period of study), a quasi-experimental design could do well in such situations. Yet, this design allows for the control of the subjects whenever needed as random assignment to various treatment groups is not followed, the equivalence of the groups is not at all assured. Of such quasi-experimental designs, the pre-test post-test non equivalent groups design is an effective method used in classroom experiments with control and experimental groups.

Usually, these groups are naturally assembled sets of students as intact classes. The difference between the mean of pre-test and post-test scores of each group and the mean gain scores of a group or two are tested for statistical significance. Analysis of variance is also used. The comparison is justifiable, yet the results are interpreted in a careful manner.

Sampling

The sample for this study consisted of 105 students studying in three classes Standard XI (first year of higher secondary course) in Government Higher Secondary School, Arachalur in Erode District of Tamil Nadu. One of the classes with 35 students as intact class was treated as the Control Group while the other two classes each with 35 students as intact classes were treated as the experimental groups.

All these subjects were rural students belonging to similar socio-economic status. All of them hailed from lower middle-class families and were first generation scholars, in the sense that their parents or grand-parents had not graduated from secondary schools. They were all of the same age group. All of them had Tamil as the medium of instruction. A copy of the personal data sheet of the students is given in the Appendix 5.

The identity of the Control and the Experimental Groups was established by finding out the significance of difference between the means of these groups pertaining to their scholastic achievement in English as measured by the state level SSLC Public Examination and the scores of the students on listening comprehension in English as
measured by the pre-tests. The scholastic achievement in English as measured by the SSLC Public Examination is given in the Appendix 6.

Administration of the Pre-Test

A pre-test in the area meant for instruction, i.e. listening comprehension in English, was administered to all the three groups before the experimentation started. The mean and S.D. of the scores were computed for analysis. A copy of the pre-test response sheet along with the stimulus material and the scoring key is given in the Appendix 7.

EXPERIMENTATION

As already stated, three identical groups, each of 35 students of Standard XI, were formed. The homogeneity among the three groups was established based on their scholastic achievement in English as measured by the SSLC Public Examination and the mean and S.D. of their scores on listening comprehension in English as measured by the pre-test. One of the groups was formed as the Control Group while the other two were formed as the Experimental Group - I and the Experimental Group - II respectively. Conventional Teaching Method (CTM) was adopted for the Control Group, while Media-based Non-interactive Group Instruction (MNGI) and Audio Video Presentation as Support System (AVPSS) to teachers' classroom instruction were introduced as experimental treatments to the Experimental Group - I and the Experimental Group - II respectively. The instructional strategies are explained as follows.

Conventional Teaching Method (CTM)

The Conventional Teaching Method is still one of the successful instructional strategies in language teaching even after the availability of the sophisticated media such as radio and television. CTM is a flexible method because the language teacher can easily adapt himself / herself to the subject matter to be taught and to the achievement level of the students. The crucial time factor can be either elongated or shortened as to suit other instructional demands. In addition to pertinent usage of language, mannerisms, gestures, postures, movement and other non-verbal communicative modes can be exploited very well by the language teacher through CTM. There is a good scope for incidental and remedial patterns of teaching English as a second language through this
method. Apart from all these factors, the physical environment of the classroom enhances the sense of security in the minds of the students and provides them with group feelings, emotional attachment and social reinforcement, which lead to expected levels of interaction and feedback in the language classroom. Hence, the CTM continues to be one of the chief methods of language teaching.

Media-based Non-interactive Group Instruction (MNGI)

With the advancement of science and technology in various spheres, new inventions and discoveries have come to stay with us forever. Their uses are manifold and they save for us invaluable time and energy. Radio and television are not only meant for entertainment but also prove to be right media for instructional purposes. Thanks to instructional radio and television, the notion of the formal classroom has the right setting for teaching and learning has been expanded to include media-based centres such as home and AV-rooms for self-paced and group modes of learning. While the individualized instructional strategy enables a learner to progress at his/her own pace, the group instructional model still provides the learners with a sense of security, group feeling, emotional attachment and social reinforcement.

AV Presentation as Support System (AVPSS)

This method combines in itself the best of both the aforesaid strategies viz. the CTM and the MNGI. And, at the same time, this method makes an honest attempt to eliminate the shortcomings of the CTM as well as the MNGI.

The teaching of English as a second language involves development of the four basic language skills (LSRW) and the related sub-skills or micro-skills of the learners. As almost all the teachers of English in India are non-native speakers of the language, teaching of these skills - especially, the aural-oral skills - does not and cannot get proper treatment in the classroom. Accentual and rhythmic patterns of RP or even a near standard variety of English seem to be difficult items of instruction as far as the Indian teachers of English are concerned. Yet, there are a few teachers who speak English fairly well. The services of these teachers may be utilized for the benefit of the entire population of the language teachers in the country and their model readings and talks be recorded in audio and video cassettes which could be exploited by all in their language classrooms. The news readers in English of the All India Radio, Doordarshan and other
private channels available in the country have been chosen for their abilities in reading
and speaking. So, the news bulletins in the audio and video modes can also be exploited
by the language teachers to some degree in their efforts in developing the listening and
speaking skills of the students. In addition, the readings, speeches, talks and
conversations in which the native speakers of English have taken part can be made use
of, to a great extent, by the language teachers through AV media in the classroom.

Keeping all these points and the established advantages of having the teacher by
the side as a facilitator in view, the investigator made use of the strategy of AVPSS in
developing the listening comprehension skills of the higher secondary students in English.
A modular instructional package was developed on the lines of the higher secondary
syllabus in the area of selected phonological features along with a set of news bulletins,
conversations and talks. This package was evaluated. The same content was taught to
all the three groups through the respective instructional strategies as follows.

The Control Group

The Control Group received instruction in the said content areas through the
CTM. Being a teacher of English, the investigator himself engaged the group using the
blackboard and a few charts as teaching aids. The classes were conducted for a period
of three months intermittently (because of obligatory breaks caused by the intervening
examinations and holidays), taking up a unit a day for about 20 to 30 minutes each. The
duration of each unit depended upon its content and the amount of clarification offered
to the learners. The investigator had seen to it that a better interaction was maintained
throughout the period of instruction. In lieu of the pre-recorded news items, talks and
conversations, there were simulated / mock readings of the transcripts. Tests in the
respective content areas were administered as post-tests immediately upon the
completion of the instruction.

The Experimental Group - I

This group received instruction as an intact class through audio and video
package. The services of a teacher were utilized simply as an operator of the tape-
recorder and the video-cassette player. The operator, being a crafts teacher, did not
have any sort of interaction with the members of the group during the pre-listening,
while-listening and post-listening stages of instruction. This group also spent three
months in listening to the modular instructional package, taking up a unit a day. However, the length of time spent for each unit by this group differed from the duration spent for the same unit by the control Group. This was due to the fact that there was hardly any room for clarification or interaction. If there was any request from one or more members of the group for replay, the operator simply ran the unit once again. At the end of the experimentation period, tests in the content areas were administered as post-test to the group immediately.

The Experimental Group - II

The members of this group were given instruction in the content areas of the instructional package in listening comprehension in English through AV Presentation as Support System to the teacher's classroom instruction. Being a teacher of English, the investigator himself remained a facilitator to this group. The students belonging to this group were asked to listen to the units of the package at the rate of one unit per day, sitting together as an intact class. The investigator positioned himself conveniently in the room from where he could explain the contents of the unit without much difficulty. He combined his explanation with the audio or video programme so that the learners could comprehend the contents of the unit effectively by listening to the tape and to the explanation as well. The investigator paused at intervals to ask questions in order to have a feedback and permitted the students to raise questions for clarification. The time spent by the group for the units varied from one unit to another but within the range of 25 to 45 minutes. The experimentation period for this group was also for about three months and tests were administered to this group as post-test soon after the completion of the instruction.

Administration of the Retention Test

A retention test in the same area was also administered to all the three groups a month after experimentation.

The scores obtained by the students of the Control Group, the Experimental Group - I and the Experimental Group - II in listening comprehension in English as measured by the pre-, post- and retention tests are given in the Appendix No. 8. The
mean and SD of the scores of these students were computed for all the three tests. The spelt-out hypotheses were tested using appropriate statistical techniques.

EVALUATION OF MEDIA MATERIALS AVALIED IN THE STUDY

Evaluation, as previously stated includes assessment of the instructional materials used in the study. Were the instructional materials effective? Could they be improved? Were they cost effective in terms of student achievement? Did the presentation take more time than it was really worth? Did the media assist the students in meeting the objectives? Were they effective in arousing student interest? Did they provide meaningful student participation?

Class discussion, individual interviews and observation of student behaviour were used in the evaluation of the instructional media. A unit appraisal form, which is given in the Appendix 9, was designed and the students' reaction to the units and modules was solicited and analysed. The appraisal form was administered to all the members of the experimental groups and their rating of the module are given in the Table 5.

TABLE 5: DISTRIBUTION OF APPRAISAL OF THE MODULES BY USERS

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating by Exptl. Group - I (%)</th>
<th>Rating by Exptl. Group - II (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5  4  3  2  1</td>
<td>5  4  3  2  1</td>
</tr>
<tr>
<td>1</td>
<td>80 17 3</td>
<td>69 23 6 2</td>
</tr>
<tr>
<td>2</td>
<td>80 17 3</td>
<td>69 23 14 4</td>
</tr>
<tr>
<td>3</td>
<td>86 3 6 5</td>
<td>77 20 3</td>
</tr>
<tr>
<td>4</td>
<td>6  45 26 23</td>
<td>3  49 36 12</td>
</tr>
<tr>
<td>5</td>
<td>69 17 11 3</td>
<td>74 23 3</td>
</tr>
</tbody>
</table>

Category 1 - Clarity of the objectives  
2 - Nature of the learning activities  
3 - Coverage of the content matter  
4 - Difficulty level of the modules  
5 - Overall opinion on the modules

It is known from the table that 80.% and 69% of the Experimental Group-1 and the Experimental Group -2 respectively reported that the spelt-out objectives of the package were clear in terms of their formulation and presentation. The table also points out that 80% and 69% of the two groups respectively vouched for the interesting nature
of learning activities contained in the module. Similarly, 86% and 77% of these two groups respectively were of the opinion that the module covered sufficient content matter in relation to the spelt out objectives. According to 45% and 49% of the subjects of the Experimental Group 1 and the Experimental Group 2 respectively, the module was neither too difficult nor too easy. Out of the total sample, 71% of the subjects considered the package excellent in design and presentation.

The module appraisal form was also circulated among 10 experts. This group consisted of the chairperson of the committee which prepared English text-books for the Higher Secondary Course (who was also the Principal of a training institute), two Heads of Departments of English in a Government and Aided College of Arts and Science respectively (one of whom was incidentally the chairperson of the committee which drafted the syllabus for English at the Higher Secondary Course), one senior lecturer and one lecturer, both are teachers working in a teacher training institute and five practising English teachers at the Higher Secondary stage (of whom two were the authors of the English text-books for Standard XI and XII). The experts listened to the audio tapes and viewed the video programmes of the package and their ratings are summarized and given in the Table 6.

TABLE 6 : DISTRIBUTION OF THE MODULE APPRAISAL BY EXPERTS

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Category</th>
<th>Rating Percentage of evaluers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>5  4  3  2  1</td>
</tr>
<tr>
<td>1.</td>
<td>Clarity of the objectives</td>
<td>70  20 10</td>
</tr>
<tr>
<td>2.</td>
<td>Nature of the learning activities</td>
<td>100</td>
</tr>
<tr>
<td>3.</td>
<td>The scope (coverage) of the content matter</td>
<td>80  20</td>
</tr>
<tr>
<td>4.</td>
<td>Difficulty level of the module</td>
<td>60  30 10</td>
</tr>
<tr>
<td>5.</td>
<td>Overall opinion on the module</td>
<td>80  20</td>
</tr>
</tbody>
</table>

It is found from the table that 70.% of the experts reported that the objectives of the package were clear with respect to their formulation and presentation. All of them agreed that the teaching/learning activities contained in the package were interesting. According to 80% of the exports, the scope of the content matter was adequate. Among
these experts 60% was of the opinion that the module was neither too difficult nor too easy. A majority of them, 80% to be precise, were of the opinion that the module was excellent.

**Technical Evaluation**

In addition to the general appraisal, the experts were also requested to validate the package from technical and language point of view. Two Heinich-Molenda-Russel checklists, one meant for audio materials and another for video materials, were provided to them, the forms of which are given in the Appendix 10 and 11 respectively. Their technical evaluation of the package is given in the Table 7.

**TABLE 7: DISTRIBUTION OF RATING OF AUDIO-VIDEO PACKAGE BY EXPERTS**

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating of Audio Materials (%)</th>
<th>Rating of Video Materials (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>70</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>70</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>80</td>
<td>20</td>
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<tr>
<td>8</td>
<td>70</td>
<td>20</td>
</tr>
<tr>
<td>9</td>
<td>70</td>
<td>20</td>
</tr>
<tr>
<td>10</td>
<td>60</td>
<td>30</td>
</tr>
</tbody>
</table>

Category 1. Relevance to objectives  
2. Accuracy of information  
3. Likely to arouse / maintain interest  
4. Technical quality  
5. Promotion of participation / involvement  
6. Evidence of effectiveness  
7. Free from objectionable bias  
8. Appropriate pacing  
9. Clarity of organisation  
10. Appropriate vocabulary level (Audio) / Use of cognitive learning aids (Video)
It is seen from the Table 8 that the 70% and 60% of the experts felt that the audio and video packages were relevant to the spelt-out objectives respectively. Of them, 80% and 70% expressed that these two packages were accurate in providing information respectively. Almost all of these experts concurred that the packages aroused and maintained interest. According to 60% and 70% of them, the technical quality of the audio and video materials was superior. Three fourths of the experts felt that these packages were likely to promote participation and involvement. Similarly, 70% and 60% of them said that the audio and the video packages respectively were effective in developing the listening comprehension skills in English of the higher secondary students. Almost all of them agreed that these materials were free from any sort of objectionable bias. Two thirds of them reported that the pacing of instruction through these materials could be appropriate. The audio and the video materials were presented in a clear manner according to 70% and 80% of them respectively. The audio materials were presented in appropriate vocabulary, according to 60% of the experts. A similar number of them said that the video materials could be used as apt learning aids to develop the cognitive skills of the higher secondary students.

**Strong points of the Audio Materials**

The experts who reviewed the audio materials of the passage recorded that the following were their strong points:

1. The content units can be used for vocabulary building, even on an individual basis with students who are unable to attach the appropriate spoken word to the printed form of the word.
2. The variety of voices on the tapes allows the students to practise dealing with different voices, different accents and a variety of speeds.
3. Learning environments is strengthened by the tapes without which a straight explanation of the content and monotonous drilling by the teacher would be effective only to a set of few excellent students in a class.
4. Students with learning difficulties (but with average intelligence) can be benefitted much as they learn how to listen to lecturers, speeches, dialogues and other oral presentation.
**Weak points of the Audio Materials**

The review of the experts contained the following remarks as the weak points of the audio materials:

1. Fidelity was found to be lessened in some parts of the recording and this extraneous background noise should have been eliminated.
2. Rate-controlled audio playback should have been resorted to as this strategy would be beneficial to slow learners.
3. Accent of a particular speaker was not upto the mark.

As regards the unwanted noise pointed out by the reviewers, it was eliminated while the recorded tape was re-edited. Similarly, voice quality and clarity of expression were improved in the case of the speaker referred to. Since a variable-speed tape recorder was not available at the time of re-editing, constant speed of delivery was left unaltered.

**The strong points of the video materials**

The experts were of the opinion that the following were the strong points of the video materials contained in the package:

1. The disparate viewers' group can build up a common experience to enhance their listening skills individually.
2. Visual recording eliminate the monotony of a conventional classroom and bring in the element of variety for better acquisition of language skills, especially the listening skill.
3. Mastery of physical skills requires repeated observation and practice; through the recorded media, a performance can be viewed over and over again.
4. In a few visuals which had the native speakers as participants, the essence of realism was felt and this would strengthen the students' listening comprehension capabilities.
Weak points of the Video Materials

The experts pointed out that the following were the weak points of the video programmes in the package:

1. The programmes were not custom-made; all of them were off-the-air off-the-shelf materials.
2. The visuals presented sophisticated treatments: they were intended to develop listening comprehension but could lead the viewers to areas other than L₂ learning as well.

Owing to the reason of cost-effectiveness, the researcher did not go in for video production. On the other hand, the materials which suited best to the needs of this study were located and selected. At this stage, the copyright acts prohibited the use of a wider range of materials. The limitation was that the recording had to be done without infringing copyright, paternity and integrity. Hence, extracts of sound recording and broadcasts were recorded and prepared for instruction and testing purposes only. Secondly, most of the video programmes suffer from misinterpretation i.e. they are too complex to be interpreted as exclusive to a specific purpose. It was, however, minimized at the selection stage itself and a careful selection procedure opted for main focus on the needs of the study.

The analysis and interpretation of data along with a description of testing of hypotheses are given in the next chapter.