CHAPTER 6
FEASIBILITY OF THE WORKING MODEL

6.0 Introduction

The preceding chapters presented the study based partly on an empirical inquiry and partly based on theoretical issues. This chapter presents a working model of 'learning from a lecture' and deals with a feasibility study based on the suggested working model. The chapter briefly reports the feasibility of the use of some of the learning strategies for performing tasks related to subject-specific skills based on the working model. The sub-study presented here is restricted mainly to suggesting an approach to be systematically investigated in future.

In the existing lecture mode of presentation, where presumably insufficient learning takes place, there is the need to make it more productive. In order to make students benefit maximally from the lectures in their chosen subjects, there is the need to develop in them the ability to use appropriate learning strategies which most students are unaware of. Some of the learning strategies relate to their academic subjects and involve a broader and deeper understanding of the subject matter. This is possible both through students' understanding of the nature of the subject topic and also teachers' contribution in making students aware of the demands
of the subject. For teaching/learning to be effective, both instructional factors and learners' use of appropriate strategies are important. The activities and tasks are learner based where students are required to use the learning strategies in order to learn.

It is assumed that the English classes at the college level help students with their comprehension problems and thereby increase their fluency and proficiency in the use of the language. But the existing situation makes it clear that they have not been able to solve the actual problems that most students have, especially in their subject classes. The study therefore focuses on the problems that students face in their subject classes. The purpose is to help them with specific problems faced in understanding their academic subjects and thereby to assess the validity of the generalisations made about the use of English in language classes.

One important question that concerns the study is — how much do the students benefit from the class lectures? If they do not as much as they ought to, why don't they? What are the problems they face? The survey shows how classroom lectures could be made more productive and thereby help students make the best use of them.
6.1 A working model of 'learning from a lecture'

Before proceeding further it would be useful to see how far the factors that influence comprehension are realized in the tasks which form the learning activities of the students. These tasks are involved in pre-lecture, during-lecture and post-lecture activities. Taking into consideration the different processes involved in comprehension of information and the crucial factors contributing to the various stages of processing, acquiring prior knowledge on the topic and consolidation of the information through pre- and post-lecture activities would be important in understanding classroom lectures. Based on the above mentioned factors a working model of 'learning from a lecture' is presented below. It is not a representational model. The model basically adopts an interactionist view as it looks at acquisition of information as the result of both the nature of input and of the main processing stages. In this case the learner's processing mechanisms both determine and are determined by the nature of input. The quality of the input also affects and is affected by the nature of the cognitive processing strategies.

6.2 A description of the evolution of the working model

The working model emerged out of different aspects of learning from a lecture situation. They are -
1. the existing teaching/learning situation at the undergraduate level and the feasibility of any experimental work in the given situation;

2. the different disciplines that students are exposed to;

3. the importance of the utility of lecture information;

4. the learner needs;

5. the linguistic assumptions made about the learners and views on the nature of learning;

6. the organisation and management of the learning environment;

7. the role of the teacher and the learner and the use of different strategies; and

8. how information is processed and internalised.

The model takes a more naturalistic perspective mainly keeping in mind the feasibility of the working model. In the given situation what best can be done to make learning more meaningful to the learners is looked at. This is directly related to the nature of learning or strategies in studying that the learners at this level adopt or use.
The model therefore relates to -

a. the basic information processing stages and how that is partly realised through the various learning strategies that learners adopt for internalising information;

b. the existing teaching/learning system and what is workable in the given situation;

c. the need to make learning at the given level more meaningful;

d. the importance of the demands of different subjects and topics that learners are exposed to and the strategies that would help them to make the best use of the subject specific information;

e. the specific requirements of the learners at this level, that is, the different abilities and skills that they are expected to acquire both in terms of language and information content;

f. learners' language background at the given level, i.e. the kind of language expected of them and what that means in terms of acquiring subject information;

g. some of the views on the nature of learning which includes the view that learners learn by doing things on their own. In this case it is using appropriate
strategies for studying leading towards learner autonomy;

h. the organisation and management of the learning situation, i.e., the way information is imparted (the procedures used in the classroom);

i. the role of the teacher and the learner. This would include the amount of freedom and decision making left to the learners and also the amount of control that the teacher would exercise on the learning process. Besides this, the different learning activities that the learners are likely to encounter would represent the use of some of the learning strategies.

The working model attempts to incorporate, the nature of input, i.e., the structure of the discipline in it. The training that is suggested through pre, during and post-lecture activities will depend a lot on the nature of each discipline, i.e., input presented. Relating the analysis of the disciplines to the type of detailed training needed is possible through topics, i.e., the structure of the discipline as reflected in the topics.
An analysis and interpretation of the assessment of students' notes reveal points related mainly to the following areas. They are -

(a) the process of note-taking;
(b) making use of notes for later study and reference.

The main findings related to this are given in Chapter 5.

The working model presents an integrated programme where the strategy of taking notes and being able to make use of the information in the notes can be realised through pre and post-lecture activities. Unless notes are reviewed and consolidated, nothing much can be said about their comprehension abilities from their notes. For processing information for intake and taking down meaningful notes, understanding the structure of a discipline is important. The working model presents 'noting' as a conscious strategy for processing subject specific information. Ultimately the working model presents a training programme that focuses on noting as a personal activity which essentially requires review and use of other learning strategies to make the information effective. The working model presents the processes involved in comprehending and internalizing lecture information through tasks related to activities in different disciplines. The starting point is encoding information during lecture hours. The model therefore looks at the learning process holistically, where the strategy
of note-taking sets off the process for learning, gradually leading towards learner autonomy.

The working model can be implemented in the existing natural classroom situation without major structural changes in the present educational system. The learning process suggested can form a part of the ongoing process of learning from lectures.

6.3 The feasibility of the suggested working model

The section discusses the feasibility of the use of the model of 'learning from a lecture' (p.210) with regard to the final year degree students at the college level. The working model of 'learning from a lecture' is not a representational model. It attempts to see the factors that actually work. The working model is also in a way a criterion for looking at students' notes. The tasks, both general and subject specific were based on the model of 'learning from a lecture' (p.210). This exploration of the feasibility of the tasks was based on the findings of the survey. Students were required to use appropriate learning strategies depending on tasks such as summarizing, reviewing, recalling, comprehension questions, categorization etc., within the framework of pre-, during and post-lecture activities. Through the use of the tasks relating to different skills, students were expected to get to know the general structure or nature of each discipline.
They were therefore made to look at lectures in a way as required by the tasks. This sub-study is restricted mainly to suggesting an approach, which will have to be investigated and validated more systematically.

The framework used for the tasks included pre-lecture activities (i.e., those which would help students understand lectures better in class), during lecture activities (i.e., those occurring in the classroom), and post-lecture activities (which would help students recapitulate and revise the information acquired). These various activities, include strategies for acquiring and storing the information and reviewing and using the stored information. These strategies include note-taking, recalling the content mainly by reviewing or reorganising, identifying and analysing important concepts and their interrelationships. The strategies for retrieving and utilizing the information include recalling the main ideas relevant to the task requirements, providing the details, i.e., specific information about the main ideas and sub-ideas, expanding the information into an outline and reviewing the final form of the information acquired.

The main purpose of the pre-lecture activities was to prepare students to comprehend the forthcoming lecture better. They focus on acquiring background information on the topic to be presented. The task is to apply the information gained from other instructional sources, to study lecture notes and
thus prepare for the next lecture. The during lecture activities include listening to and gathering information by taking down notes from lectures. The act of encoding when taking notes, was assumed would help students comprehend the information better. In the post-lecture activities stage, students engage themselves in activities to enrich the learning that has already taken place, in consolidating what has been learned and produce notes that would be useful. Studying at this stage will be an interactive process involving a student’s prior knowledge of the information presented, the actual information presented in lectures, class notes and other review materials. It is through these activities at different stages that the process of understanding becomes more effective. This developmental process is continual in the sense that every act of understanding widens the ability to understand. This leads to a cyclic effect. For example, what is understood is based on what is known, and what is already known comes from being able to understand. Thus the pre, during and post-lecture activities have this cyclic effect. The programme is intended to make students work independently guided by their prior knowledge but with some guidance from the teacher. The tasks varied to some extent with different subjects. The pre-lecture tasks involved students in some metacognitive strategies like -
(1) **previewing the organizing concepts** that would be necessary for a learning activity.

(2) **selective attention**, i.e., deciding to attend specific aspects of the input,

(3) **preparing in advance on the topic**, i.e., the general idea of the topic etc.

During lecture activity focused on the cognitive strategy of **note-taking**. The post-lecture tasks include cognitive strategies like

(1) **resourcing**, i.e., using reference materials,

(2) **grouping and categorizing**, i.e., labelling the information under different categories,

(3) **note-making**, e.g., revising and reviewing notes,

(4) **identifying key concepts and words**,

(5) **elaboration**, i.e., relating new information to other concepts in memory,

(6) **inferencing**, i.e., using available information to guess meanings of new items.
6.3.1 The objectives

The main objective for the try-out of some of these tasks with the students was to observe if the tasks involved in the use of the learning strategies helped students in comprehension and utilization of lecture information better. Some of the other objectives were -

(a) to gauge the effectiveness of the learning strategies, mainly how the strategy of note-taking in class, reviewing and revising notes and making use of these notes for later references help students in their learning;

(b) to see if understanding the basic concepts and nature of a subject through some of these tasks helped in understanding the content of a topic better in lecture classes.

6.3.2 The sample

The sample for the try-out consisted of the final year students belonging to three different subject groups. In Economics, the number of students for the first five classes varied between 8 and 12. In History, there were around 12 students, and in Literature 15 students participated in the working of the tasks.
About 10 class hours were covered in each subject, of which 5 were devoted to general tasks that applied to all subjects and 5 for tasks related to subject specific skills. The set-up was a typical, natural classroom situation with different subject teachers presenting subject lectures. The relevance and usefulness of students' performance on the tasks over a few classes were observed.

6.3.3 Teaching styles

In the following paragraphs each of the subject groups is taken up separately for discussion.

In Economics the time taken for the teachers to explain the topic of lecture was between 30 and 40 minutes. After the lecture, 10 to 20 minutes were taken by the researcher for setting up tasks for the students related to learning strategies. The teacher generally introduced the topics by putting up the main points on the board and sometimes recapitulated a few points already done in the previous class. Students were asked a few questions on the points covered during the lecture. In most classes, the teacher mentioned the topic that was to be covered in the next class, thereby introducing them to the topic. Though 30 minutes of the class timing was taken up by the teacher in explaining the topic, the teacher took care to put a few questions to the students.
In History generally 35 to 40 minutes were taken up by the lecturer and the remaining 10 minutes were for the researcher. In 8 out of the 10 History classes, some recapitulation was done by way of introduction and these had conclusions of some sort, though most of the time was spent on explaining. In English Literature, 30 to 40 minutes were taken up for explanations and the remaining 10 minutes were for the researcher. The teacher generally went through the text line by line with appropriate references wherever required. Most of the classes had brief introductions and conclusions.

6.3.4 The first phase - tasks within the framework of the model

In the first phase of the programme, the tasks generally applied to all the three subjects within the framework of pre-lecture, during-lecture and post-lecture activities. Tasks related to each of the three subjects were taken up separately in the second phase of the programme.

Class 1

1. Before the presentation, students were asked to take down notes as they normally do when listening to lectures.

2. As part of the during-lecture activities, students took down notes while they listened to the lectures.
3. After the presentation of the lecture, students were asked to answer a few short questions in class with the help of their notes. Their answers were then collected.

4. Students were then asked to revise their notes at home and rewrite if necessary to improve their notes, as post-lecture activities.

5. As part of the pre-lecture activity for the next class, students were asked to get familiar with the topic of the next lecture.

Class 2

1. Before the presentation of the lecture, students were asked to answer a few questions based on their revised notes.

2. The notes were then collected, i.e., original and revised and also their answers based on their revised notes.

3. Students were given a few tips on note-taking like noting the key words and the use of abbreviations. Students were then asked to take down notes keeping in mind the points mentioned in connection with note-taking.

4. After the lecture, students were asked to list a few abbreviations and key concepts and words that they would have taken down in their notes. The papers were then collected.
5. As part of the post-lecture activities at home, students were asked to have a study guide, which would help in categorization of information under different headings. They were asked to review their notes and try to categorize the points under different sections or headings.

**Class 3**

1. Before the presentation of the lecture, their answer papers were collected.

2. They were then given a task based on the notes taken down in the previous class, i.e., they were asked to frame a few questions from their notes.

3. Students were asked to note down points keeping in mind the 'study guide' pattern and were required to keep in mind some kind of organisation in the notes while taking them down.

4. After the lecture, students were asked to go through their notes and categorize information under different headings in the class.

5. Students' notes and answers were then collected.

**Class 4**

1. Asked students to take down notes keeping in mind the main concepts, terminologies used in the lecture.
2. After the lecture students were asked to quickly go through their notes and put down the important concepts from the notes in their sequential order. Their answers were then collected.

3. Before the end of the class students were asked to review their notes at home.

Class 5

1. Students' original notes and their review answers were collected at the beginning of the lecture.

2. Students were asked to take down notes keeping in mind what they thought were important words and concepts, the abbreviations, and some kind of a sequence of points.

3. After the lecture, students were asked to improve on their notes by either categorizing the information under different sections, using the patterned structure or using some schematic form with all the relevant information present.

4. Their original notes and their improved ones were then collected at the end of the class.

6.3.5 The second phase

The second phase focussed on the subjects, that is tasks which dealt with subject-specific skills, concepts and
principles. The feasibility of the use of the tasks were observed within the time constraints of the existing subject lecture classes. All the post-lecture activities were checked during the subsequent class hours to see if students were able to cope with the tasks and the use of the learning strategies. The teacher with the help of the researcher devoted the first and the last ten minutes before and after the lecture presentation for classroom activities. In the following paragraphs each subject is taken up separately.

The plan of the try-out followed a pattern in the order of during-lecture activities, post-lecture activities in class and after class and pre-lecture activities before class.

6.3.5.1 Economics

(a) During-lecture activity

Based on the general framework of the tasks and the topics, students in all the five classes were generally asked to take down notes during lecture, concentrating on the main points and argument, subject-specific key concepts and terminology, appropriate examples related to the problems being presented and relevant data if present in the lecture. The main strategy employed was note-taking, which involves decoding and encoding of the information.
(b) **Post-lecture activity in class**

After the presentation of the lecture, in some of the classes students were asked to answer a few comprehension questions related to the main idea or theme of the topic and categorize information based on their notes. They were asked to quickly go through their notes before attempting the tasks. The strategies relevant here are the cognitive strategies of grouping information, which involves reordering and labelling the material through a review of notes.

(c) **Post-lecture activity after class**

In after-class activity students were required to perform tasks which involved them to draw conclusions logically from an analysis of information present in their notes and that they would have comprehended in class and understand economic data, such as using and explaining diagrams which describe the relations between variables; understand the key concepts and their application to simple problems; evaluate evidence etc. The tasks, it is hoped would ultimately lead students on to work independently on a project in Economics. The tasks were generally of the problem-solving types. The tasks required the use of learning strategies like reviewing of notes, i.e.,

(i) note-making;

(ii) resourcing;
using key concepts;

elaboration (which involves relating new information to concepts in memory);

transfer (i.e., using previously acquired conceptual knowledge to facilitate new learning tasks); and

inferencing (which requires students to use available information to guess the meanings of new concepts and ideas).

### Pre-lecture activity

The tasks mainly related to acquiring background information on the lecture topics and thereby preparing students for the forthcoming lectures. The tasks mainly related to the skills of finding relevant economic information on the topic to be presented. The metacognitive strategies required for the tasks were mainly advance organizers, which involved making a general preview of the organizing concepts in the topic in an anticipated activity; advance preparation, that is planning to be attentive and concentrate on the aspects of the information to be presented.

### 6.3.5.2 History

#### During-lecture activity

The main classroom strategy used by students in all the 5 classes were that of note-taking. They were required to concentrate on dates in relation to events and contexts,
historical events both past and present which they thought were important, and the main causes, while taking notes.

(b) Post-lecture activity in and after class

Simpler tasks which could be performed within the time constraint of a classroom lecture formed the activity in the classroom, and tasks of problem-solving type were after-class activities. The tasks mostly based on the information in their notes, generally involved students in (a) understanding the method of historical analysis, which include considering arguments for and against a given course of action; (b) understanding the relationship between the past and the present through an analysis of evidence; (c) using of maps and charts; (d) distinguishing between short and long-term causes and recognising degree of importance of causes; (e) developing skills necessary for evaluation of evidence; (f) sequencing events one after another; (g) interpretation of evidence.

The learning strategies involved in performing the tasks were reviewing of notes, inferencing, transfer, elaboration, remembering key issues and events etc.

(c) Pre-lecture activity

These tasks were after class activities and were mainly concerned with preparing students for the following lectures, the topics of which were earlier discussed with them. The
tasks were mainly concerned with the ability to collect information from different sources on the topic, be able to piece together information collected; and distinguish between primary and secondary source material. These mainly involved students in reading and reference. The meta-cognitive strategies generally required were advance preparation in terms of specific topic components necessary for carrying out the anticipated tasks; and selective attention i.e., deciding to focus on certain aspects of the topic depending on the nature of the information. The cognitive strategies involved were note-taking from books and resourcing.

6.3.5.3 Literature

(a) **During-lecture activity**

During the presentation of lectures, students were required to take relevant notes specifically keeping in mind authors' biographical information; literary terms, e.g., important lexical items; basic concepts like - image, symbol, irony, metaphor, and the different literary forms like comedy, tragedy, novel etc.

(b) **Post-lecture activity in and after class**

The tasks related to the skills of applying knowledge of specific literary text, i.e., a process of comparing and contrasting; applying students' knowledge about the author
to a literary work; classifying the type of work in terms of
genres, forms; expressing perception; expressing judgement
on the worth of the work etc. The strategies required of
the students to perform the tasks were:

(i) reviewing notes;
(ii) resourcing, i.e., using literature and language
    reference materials;
(iii) elaboration;
(iv) transfer;
(v) contextualization; and
(vi) recalling key images.

(c) Pre-lecture activity

Through these activities students involved themselves in
acquiring some background information on the lectures. The
tasks involved collecting background knowledge of the history
and character of the people whose literature it is; promoting
a close reading of the text; collecting information about the
author; finding the etymology of certain lexical features.
The cognitive and meta-cognitive strategies related to the
tasks were -

(i) note-taking from reference books;
(ii) resourcing, i.e., using reference materials;
(iii) advance preparation in terms of the different aspects
    of the topic etc.
6.3.6 Observations

A few observations were made regarding the relevance and usefulness of learning strategies related to general and subject-specific tasks. The observations make it fairly clear that:

1. The use of appropriate cognitive and metacognitive learning strategies as part of the pre-, during and post-lecture activities will help students develop an efficient/academic style of learning and thereby make meaningful use of lecture information. Also students seem to get more interested in lecture topics.

2. Students show improvement in their performance in tasks based on their lecture notes which are reviewed by them. This indicates that notes as taken down without a review period remain to a great extent a mechanical encoding exercise. It is when revising or reviewing that notes reflect their comprehension abilities through the process of decoding.

3. Reviewing notes does not always involve change in the lay-out or format of the notes. Results clearly show that reviewing makes a difference in their performance on tasks. This suggests that simply going through their notes and thinking about the content helps them as much. From some of their revised notes which were studied, it is possible to
predict their comprehension abilities to some extent. This is evident from the organisation and categorisation of information in their notes.

4. Instructions in the use of certain discourse markers, abbreviations and key words and concepts help students while taking notes in class to some extent. Most of the cues are however made use of when reviewing notes to help students organise information systematically.

5. Students use some other cognitive learning strategies within the framework of pre-lecture, during-lecture and post-lecture activities. These are:

1. **resourcing**, i.e., using reference materials, **note-making** or **reviewing of notes**,

2. **grouping and categorizing**,

3. **identifying key concepts and words**,

4. **elaboration**, i.e., relating new information to other concepts in memory,

5. **inferenceing**, i.e., using available information to guess meanings of new items, concepts.

The use of these strategies depend on the requirements of the tasks. The meta-cognitive strategies they use are:

1. **advance-organizers**,

2. **selective attention**, and

3. **self-evaluation**.
The tasks students engage in are reviewing, or restructuring or reorganizing notes, categorizing information under separate headings based on their notes, elaborating concepts and summarizing information, answering questions, doing reference work for preparation and consolidation of the information, reading up relevant materials, framing questions, presenting facts in proper sequence, and diagrammatic presentation of information.

6. Some of the cognitive learning strategies are often specific to distinct tasks or activities. This is seen in the use of strategies like resourcing and grouping. In the use of these strategies students perform tasks that require them to complete an activity which needs additional material and categorize information under different sections. But there are other strategies which students vary depending on the tasks — both in terms of complexity and type.

7. The observations show that students often prefer one particular strategy for a particular discipline. For example, categorizing information or grouping, apply more to Economics where the information content is such that it demands the use of that strategy more than any other. Sequencing of points is more appropriate for History and the strategy of inferencing is more used in Economics and History. However, some of the
strategies like resourcing are equally suitable for all three disciplines and therefore the transfer of the use of the strategies is to be expected.

8. From the research it would seem that students by engaging themselves in tasks that are subject-specific, get some exposure to the structure of the subject. This probably helps in understanding subject information better.

6.4 Conclusion

This particular section attempts to present the sub-study tried out with each of the three subjects in the lecture classes. The main objective of it was to see if given the natural situation as it exists, students can be exposed to the use of certain skills and strategies which would ultimately help them to learn better. It is assumed that the activities which form a part of the pre-, while and post-lecture stages would be feasible and therefore be readily acceptable to both teachers and organizers of the courses.

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