CHAPTER-4
THE DISCIPLINES: THEIR NATURE AND DIFFERING DEMANDS

4.0 Introduction

The present chapter attempts to relate the study to some theoretical assumptions. The survey presented in the preceding chapter shows that college students' existing ways of studying are generally inadequate. In the present set-up they have to cope with long monologues unsupported by blackboard matters, handouts, etc., and not interspersed with discussions. In this situation the natural processing of input is not sufficient for effective acquisition of subject information to take place. There is the need for the use of conscious learning strategies by the students for more effective acquisition of information.

Students' comments suggest that they feel the need to develop learning strategies but are not adequately aware of the use of the strategies. They generally attempt to take down notes while in class, but they have problems with the selection of appropriate points, organizing and categorizing them meaningfully. It can be argued that lack of adequate comprehension of subject information as it is rapidly presented in lectures, is the basic problem. This weakness is reflected in their 'notes' — which prove to be unhelpful for retrieving important subject-specific knowledge later on.
The present study has adopted the main cognitive processes involved in transactional listening as its framework. The framework presents a developmental process through the use of learning strategies in a lecture context. This developmental process is described in relation to the while-lecture activities and post-lecture activities through different tasks. One way of improving comprehension could be the activation of knowledge of the nature of the discipline. This framework would help students relate incoming specific information to major concepts and principles in this discipline. According to Rost (1990), one of the editing strategies, in this case, the use of genres, would help the learners to generate expectations on the topic, that would ultimately aid comprehension. It appears that there are systematic differences in students' perceptions of appropriate ways of learning in different subject areas. Also the meaning of the deep and surface approaches distinction shifts in relation to students' reports of their experiences in different disciplines.

There was therefore the need to consider subject area differences in the training programme that is suggested. It was assumed that once the basic demands of a topic are understood, students' note-taking abilities will be more systematic and meaningful. The notes thus taken will naturally be useful for later reference if students are given the opportunity to
revise the notes. This section looks at the basic nature of each
discipline and the components involved in each.

The present study focuses on the processes of learning from
lectures in relation to the three subject areas and their nature.
The study is not specifically similar to situations where the
concept of ESP is used. However the broad setting is EAP within
ESP. The problem tackled in the study is not on the language
related skills but on the content/message related cognitive
operations that the different specific types of subject matter
in a lecture context call for. ESP is more related to acquiring
language related skills in English classes whereas in the
present study information acquisition is seen in subject classes.
English here is used as the medium of instruction for acquiring
subject specific information. It is assumed that students at
the third year college level have a basic knowledge of the use
of most of the language related skills. However further language
learning is not ruled out; indeed it is quite likely. But
promoting it is not a specific aim of the study. The study
presupposes that if the focus is on comprehension and assimilation
of information, language learning would be automatic and therefore
acknowledging the fact that language related skills are important
for acquiring subject information. The objective is not to
teach a subject for improving language skills but to teach
a subject in order to understand the meaning of the subject area.
The present study differs from a typical EAP investigator in that it focuses on the differences across the three subjects, rather than on the language functions and skills common to them.

In EAP, however, there has been a shift from engaging students in the right text to the right task (Swales, 1985). The focus is more on the tasks and the activities that are involved in performing the tasks. Secondly, there is a shift in focus to the importance of the disciplines in higher education. The disciplines with their own activities, knowledge structures and communication patterns, present a rich and highly purposeful area for language learning and use (Becher, 1989). Similarly Swales (1990), offers an approach to the understanding of academic discourse based on genre analysis. It is assumed this shift would prepare students better with the languages and language skills they need to use.

The first section of this chapter consists of a definition of the nature of a subject as used in the study, its importance in an educational context and the inquiry model. The next section is about the nature and characteristics of each subject included in the study and the subject-specific skills in relation to students' needs in the given context. This section will briefly deal with each of these subjects, note how each of these requires to be approached by the teachers and the students in order for the latter to acquire a proper
understanding of the subject. Students at the undergraduate final year, specialising in these subjects, need to have an adequate grasp of the subject matter. The nature of each of the subjects would only be discussed in relation to the needs of the students, in other words, the requirements expected of them at the final degree level. The main objective in dealing with the structure or nature of each of these subjects is to make students realize the broader perspective of a discipline and how understanding this would help them acquire subject information better.

After prolonged observation of students' responses to questionnaires, it is found that students are not aware of the demands of different disciplines even at the third year stage. Inspite of the exposure they would have got in their subjects of specialisation for almost three years, they fail to show evidence of their knowledge of what the subjects actually involve. The main reason for this lack of awareness is the present examination system. Education at the tertiary level is to a great extent examination oriented and students approach to a discipline is very much guided by the examination questions. The questions are usually of such a nature that they do not require an analysis and thinking on the nature of the disciplines on students part. Secondly, the training as part of lecturing, does not in any way try to make students aware of the demands
of a discipline. Therefore even at the third year B.A. stage students are not aware or conscious of the nature and requirements of a discipline. The situation does not offer an opportunity or scope for students to actually think in terms of the subjects.

4.1 A concept of the 'structure' of a subject

The possibility of basing the tasks on the fundamental nature of a subject in relation to the needs and the ability level of the students is considered important. Bruner's (1960) views seem to explain the phenomenon on the structure of knowledge and subject. According to Bruner, learning a subject involves three processes. Firstly, there is the acquisition of new information, secondly, transformation, i.e., the processes of manipulating knowledge to make it fit new tasks, and thirdly, evaluation, i.e., checking whether the way the information is manipulated is adequate to the task.

Bruner's concept of the structure of a subject is related to his theory of instruction. The present study, however, focusses on the nature of a subject from the learner's point of view. By knowing the nature of a subject a student should be able to get a sense of the fundamental ideas of a discipline. Grasping the basic nature of a subject is understanding it in
a way that permits many other things to be related to it meaningfully. According to Bruner, the teaching and learning of structure is closely related to the problem of transfer of principles and attitudes which is crucial in broadening a learner's knowledge in terms of ideas. Thus the learning that takes place through the transfer is dependent on the use of the structure of the subject according to Bruner.

To Bruner, the most effective learning is through 'discovery' or insightful learning, and this is used for the acquisition of the basic 'structure' which every discipline possesses. The perception of 'structure' involves the basic grasp of logical relationships of points or events within subjects. Bruner's main claims for learning the structure are its retention-value and transfer value. The learner ought to be made aware of logical 'techniques' of induction, deduction, generalisations and so on. Understanding of the fundamental ideas of a subject involves the development of an attitude towards learning and inquiry, predicting, being able to solve problems on one's own etc. In order to achieve this, an important element or factor is a sense of excitement about discovery, i.e., identifying the relations and similarities between ideas and principles.
4.2 Importance of the subject nature in an educational context

Four general claims can be made for teaching the fundamental, relatively natural structure of a subject. Firstly, understanding the workings of the basic principles makes a subject more comprehensible. The second point relates to human memory. The integration of detailed information into a pattern comprising the basic principles of a subject is very essential as the information is rapidly forgotten if this is not so. Thirdly, relating it to understanding something as a specific instance of a more general case, and lastly, reducing the gap between advanced knowledge and elementary knowledge by re-examining material for its fundamental character.

It has been seen that emphasizing the nature of a subject increases students' effectiveness in dealing efficiently with problems. For example, in History, intuition plays an important part in selecting what is relevant. It has been suggested that Economics is a 'method rather than a doctrine'. Discussions of the nature of various disciplines emphasize the importance of what Ryle has called 'knowing how' as opposed to simply 'knowing that'. Here the emphasis is not on the abandonment of factual knowledge but that of fact memorization for its own sake. What is central to a discipline is its way of thinking.

Schwab (1964) suggested certain criteria on the basis of which different forms of knowledge or disciplines can be
distinguished on logical grounds. The criteria set down by Schwab for analyzing the nature of a particular subject are -

(a) determining the organisation of the discipline,
(b) identifying its mode of enquiry and means of knowledge, and
(c) identifying the 'substantive structure', i.e., the principles chosen to guide enquiry.

Students at the college level need to -

(a) develop concepts relevant to the subjects they are studying,
(b) learn the required modes of enquiry, and
(c) understand the functions of language in relation to the content and develop the ability to use language for communication.

Before going on to specific concepts it is important to relate them to an overall cognitive structure of a learner. The cognitive structure of the individual at any point in time includes everything the individual has learned (Ausubel, 1967; 1968). Learning has many products or outcomes which may be categorised as perceptual information; verbal information and skills; concepts; principles; structures of knowledge; including taxonomies and problem solving skills, including strategies of learning and remembering, according to Klausmeier (1980). These are learned initially, represented internally, organised, and then stored in the form of images, symbols, meanings. These concepts, and principles are powerful outcomes of learning in
the cognitive domain. Klausmeier (1980) states that a concept is both a mental construct of the individual and meaning of one or more words that express a particular concept. Concepts are therefore the basic tools of thought and comprise much of the subject matter of science, English, Maths and Social Studies.

According to Klausmeier (1980), concepts have two aspects - (1) the accepted meaning of one or more words that express the particular concept in any discipline, and (2) mental construct of an individual. These are the components of an individual's changing cognitive structure and are the basic tools of thought. They are for example, inferring and predicting. Both these aspects of concepts would have to be considered in a subject, though concepts as accepted meanings of words that express the particular concepts comprise much of the subject matter of any discipline which students learn during lecture classes. A principle may be defined as a relationship between two or more concepts. The types of relationships expressed in principles are -

(a) cause and effect,
(b) corralational,
(c) probability, and
(d) axiomatic, i.e., universally accepted truths or conditions.
Thus the cognitive structure of the student continues to increase as the individual learns. To learn a concept and to relate it to other concepts as part of a conceptual core implies knowledge of the defining attributes of the various concepts that comprise the conceptual core (Klausmeier, 1980).

4.3 Main procedures in concept attainment

It follows from the discussion above that the teacher and curriculum designer, identify the target concepts that the students are to learn, the level at which the concepts are to be learned, principles that require understanding of the target concepts, and the problems that require understanding of concepts. In the existing situation in college courses, the taxonomies and other structures into which the subject matter can be organised are not utilized in the textbooks or other materials. Some of the main procedures as presumed in CLD, i.e., the Communicative Learning and Development theory to facilitate students' attainment of concepts are the following (Klausmeier, 1980):

1. Present materials containing both examples and non-examples of the concept.

2. Give the name of the concept along with the concept examples to help association.
3. Help the student discriminate and name some of the defining attributes of the concept.

4.4 The 'nature' of the subject

According to Phenix (1964), the teaching of material from any discipline should be considered specifically in relation to the character of that discipline and not based on principles of teaching in general. The specific and unique features of the three subjects tackled are now taken up. The conceptual nature of each subject is discussed in terms of the following components.

1. The subject specific concepts, principles, generalizations and their relationships to each other.

2. The mode of inquiry, reasoning indicating the nature of each subject, and their application to overall learning.

3. The subject specific skills needed to understand the subject.

In the following paragraphs, the three subjects — Economics, History and Literature — are taken up to assess the extent to which they are different from the other in respect of the nature, mode of inquiry and the skills. When discussing a subject it is essential to understand what it basically is and what the aims of teaching are. In each case these characteristic ways
of inquiry have proved their power to increase knowledge and to economize learning effort (Phenix, 1964).

4.4.1 Economics

In a subject like Economics, there is the need to develop a thorough understanding of the subject's fundamental nature of its major concepts.

The central fact around which all economic thought and action turns is that human beings have unlimited wants but only limited resources. From this disparity, arises the problem of scarcity of goods and services. Economics is concerned with scarcity only in relation to people's desires. The most distinctive feature of contemporary Economics, in comparison with earlier economic thought, is this recognition of the whole social context in which economic behaviour occurs (Phenix, 1964). The logical structure of Economics involves an inquiry into the nature of the facts with which Economics deals, determining how far they are available for direct observation.

The use of a developmental approach which includes both description and theory, directed to fostering an understanding of the basic concepts and principles in Economics — with frequent opportunity to apply these tools of analysis in practical situations, is of recent interest. This approach
requires the identification of its basic facts, concepts and principles and the relationship which these bear to one another.

Teaching the nature of Economics will also require to develop an awareness among the students of the main objectives of the course. This falls within the logical structure of the systems approach, which is different from economic theory. It has been pointed out by economists that students will learn more if they know in advance what the course objectives are, especially when the objectives are spelled out in terms of specific student performance. It seems that the use of objectives forms the basis for most educational proposals regarding the teaching of Economics. According to an economist, the primary goal is "to produce students who can think intelligently for themselves about economic issues five and ten years after they have taken the course and left campus."

4.4.1.1 Subject-specific skills

Economics

Some of the important subject-specific skills that students need to develop according to the experts in the field are the following:

1. Draw conclusions logically from an analysis of the information present.
2. (a) Develop a capacity to use the terminology, language and symbolism of the subject with some precision and clarity, (b) develop an ability to use and explain diagrams which describe the relation between two variables.

3. Develop a capacity for economic reasoning and for logical expression of economic ideas based on a study of relevant data.

4. (a) Develop an understanding of the interdependence and the interrelation of the different parts of the economy. (b) Be able to appreciate the functions of the more important economic organizations such as the banks.

5. Develop skills enabling students to find economic information, evaluate evidence and suggest solutions to economic problems.

4.4.2 History

In History too there is the need to develop a thorough understanding of what the subject is about. Historians argue that the student should know what History is, and the various ways in which the subjects may be approached. History basically studies the growth of society in all aspects — political, economic, social, cultural etc., and hence the change and development in all the above aspects of human society form the basic structure of the subject. It will be appropriate here to see what History essentially is to some of the historians.
According to E.H. Carr (1964), "History is a continuous process of interaction between the historian and the facts, an unending dialogue between the present and the past." "The study of history is a study of causes" (E.H. Carr, 1964).

History deals with (1) past events, i.e., 'History as actuality', (2) the method used by historians to reconstruct the past, and (3) statements that historians write about past events. The method of inquiry used to solve historical problems is unique because the historian is the only social scientist whose research is limited to the reconstruction of past events. Historical understanding thus consists in a recreation of the past through participation, in thought, in the lines of those who made the past what it was (Phenix, 1964).

According to Marc Bloch (1953), a historian, "History is the science of man in time." The central category in the field of History is time and History alone gives to time its integral meaning (Phenix, 1964). Therefore the major organizing principle is time. The unit of historical inquiry, in which the full significance of time is revealed is the event, happening or episode. An event is something that happened once upon a time and is concrete. Historical events are located at particular points in time and historical changes take place over a period of time. The integrative nature of
History follows from the concreteness of events as the basic units of historical inquiry. The object of historical inquiry is to understand particular decisions that people have made in the past, to ascertain the facts about the human past. The whole point of historical study is to find out what really did happen by reconstructing it in imagination. Therefore the subject matter of History is what happened in the past or human events in the past.

Historical facts have to be established and must be supported by some sort of evidence. The making of history is thus a process of drawing *inferences* from available *evidence*. The method of inquiry is essentially a scientific method. It is a science in the sense that it formulates broad statements to describe events and look for evidence to support them. According to W.H. Walsh (1967), "History is a 'significant' record — an account in which events are connected together". Historians are primarily occupied with individual events. According to a historian, "the central concept of history is the concept of action, i.e., of thought expressing itself in external behaviour." A historian's aim is to make a coherent whole out of the events he studies.

Another characteristic of the discipline is that it involves the influences of the present. Firstly it deals with the general ethos of the period in which the historian is living and writing. Secondly a historian's standpoint is reflected in the subject
matter he is interested in, in the things he considers relevant or irrelevant to his purpose, in the kinds of questions he asks for his evidence etc. History involves the historian who lives in the present.

History gives great importance to detailed facts which enables the historian to acquire training in two important skills. The first is skill in separating fact from opinion and from falsehood. The second is skill in drawing sound inferences from facts. According to a History student, "you get this impression of the history student being airy-fairy and temperamental ... history students and artists deal in theory - we discuss theories and opinion." (Ramsden, 1984 in Marton et al., 1984).

Coming to the purposes of teaching the subject, a historian observes: "In the case of history there are two things that stand out unique: (1) the historical method of arriving at facts, (2) historical idea of development." About the values of teaching History it was observed that the value of this study consists in the cultivation of an historical sense rather than in the acquisition of knowledge. The other value of teaching history is inculcation of the historical idea of development which implies the study of continuous process of change.

4.4.2.1 **Subject-specific skills**

Some of the skills specific to the subject and which students ought to develop according to scholars and teachers of History are -
1. Understand the method of inquiry, the method of historical analysis (this would include considering arguments for and against a given course of action and studying the conditions that give rise to causes and movements).

2. Understand the concept of 'time':
   (a) concept of time in general,
   (b) historical time (establish a framework of time within which historical events could be located),
   (c) the idea of change over time.

3. Understand the relationship between the past and the present carried on through the examination of evidence.

4. Improve memorization of dates in relation to events and contexts.

5. Use of maps and charts.

6. Distinguish between primary and secondary source material and have knowledge of the wide variety of evidence available.

7. Distinguish between short and long term causes, recognise variety of causes and degree of importance of causes.

8. Promote the development of skills necessary for
   (a) reference, reading, enquiry,
   (b) evaluation of evidence,
   (c) interpretation of evidence,
   (d) effective communication and presentation.
9. Use of the imagination to experience the past.

10. Develop the ability to collect information from different sources and be able to piece together information collected.

4.4.3 English Literature

The subject matter of Literature is primarily the individual work, such as a poem, a novel or a play. Each is a unique whole, with its own proper beginning, middle and end. René Wellek and Austin Warren (1942) in their *Theory of Literature*, distinguish two kinds of approaches to the study of Literature. They are the extrinsic and the intrinsic approaches. An extrinsic approach refers to a piece of literature that is to be interpreted in relation to the biographical, psychological, social factors presumed to have influenced it. The intrinsic approach deals with the starting point of literary scholarship as the structure of literature rather than the external factors. The intrinsic approach is essential because it presupposes the distinctness of literary understanding in the aesthetic mode. Commenting on literary competence, Culler (1975) (as quoted by Burke and Brumfit, 1986, pp.171-176) writes

"... anyone wholly unacquainted with literature and unfamiliar with the conventions by which fictions are read, would ... be quite baffled if presented with a poem. His knowledge of the language would
enable him to understand phrases and sentences, but he would not know, quite literally, what to make of this strange concatenation of phrases. He would be unable to read it as literature ... because he lacks the complex 'literary competence' which enables others to proceed. He has not internalised the 'grammar' of literature which would permit him to convert linguistic sequences into literary structures and meanings."

W.W. Robson (1982) defines Literature under two categories: (1) the descriptive, those which do not refer to value or quality, and (2) the honorific, those which belong to value or quality. Descriptive definition firstly refers to a special use of language. Secondly, Literature is fiction. While agreeing that the centre of the art of Literature lies in the traditional genres of lyric, epic and drama, Welleck and Warren (1942) remark that in all of these the reference is to a world of fiction, of imagination. Honorific definitions are more in keeping with normal usage. According to Hoggart (1964) - in Burke and Brumfit (1986, pp.171-176)

"Literature can never be aesthetically 'pure' or abstractly contemplative. By its nature - because its medium, language, is used by almost everybody in all sorts of everyday situations; and because it tries both to say and to be - literature is an art which invites impurities."


A major problem in the study of Literature is to distinguish the various functions of language. Language used for esthetic purposes conveys different meanings from language used for non-esthetic purposes. In Literature language is deliberately exploited for its expressive effect rather than to indicate or describe things for practical purposes. In Literature, according to Widdowson (1985, pp.180-194),

"the language must itself create the contextual conditions for understanding, it must build to its own schematic framework".

A central concept in the art of Literature is 'imagination'. The term is intended to refer to the use of language, to create new forms of experience. Literary images are particular perceptions or presentations which also stand for something inner and ideal. Symbols are objects that refer to something other than themselves. Inherent in a metaphor is a principle of analogy, an intuition of qualitative likeness between different things. Myths are an expression of important social meanings through concrete images (Phenix, 1964). Since the meaning of the individual work, in the organization of its elements into an expressive whole, is the objective of literary understanding, classifications by genre analysis of style, ordering by periods, are useful only as they help the reader to discover the values inherent in individual works.
The role of language in Literature has raised the issue of literary and non-literary language. According to Short and Candlin (1986, pp.89-109),

"If there is a distinct corpus of text which can be called 'literature', it would appear that the corpus will have to be defined at least partly in socio-cultural rather than in linguistic terms".

It is important here to point out that the structure of Literature as a subject includes both socio-cultural and linguistic aspects. As pointed out by Brumfit (1986), the codes of literature would include -- "the interplay of event, relationships between characters, exploitation of ideas and value systems, formal structure in terms of a genre or other literary convention, and relationships between any of these and the world outside literature itself." According to a student of English-- "the work demands, in a way, a completely different intelligence. For us it's more interpretation, more analysis, more penetration into the material ... for English you have to see implicit meaning" (Ramsden, 1984; in Marton et al., 1984).

4.4.3.1 Subject-specific skills

The subject specific skills can be categorized as under -

(a) application of knowledge,
(b) responses expressed, and
(c) use of critical skills.
These include both linguistic and socio-cultural aspects. Under the first category students should

1. develop knowledge of specific literary texts (original works), i.e., a process of comparing and contrasting texts;

2. acquire biographical information, i.e., relating students' knowledge about the author to a literary work;

3. be aware of literary cultural, social and political history. (This will include all non-biographical and non-critical information that might be brought to bear on a text or lecture);

4. identify literary terms (classification of the type of work) (The types might be devices, genres, forms or models);

5. comprehend cultural information, i.e., identify the allusions to mythology that might be in a work and relate the work to traditional stories and themes.

In the second category, responses would include -

1. Expression of perception, i.e., being able to classify and analyse. Analysis of parts include - (a) linguistic analysis of the phonemic features like rhythm, meter, alliteration, rhyme, etc., (b) of lexical features like diction, etymology. Analysis of literary devices include description of metaphors and images.
2. Expression of judgement on the worth of the work. This includes - (a) evaluation based on effect, (b) evaluation of technique, (c) evaluation of the vision of the artist. The responses and expression are to be original and not based on critical opinions.

3. Expression of a pattern of preference include - reading a particular novel in preference to certain other kind.

The third category, critical skills include close listening to lectures, e.g., on questions of form, of rhetoric, of meaning and of value and comparison of one work with another and comparison of a work with the listener's other experiences.

4.4.3.2 Study of Literature related to the present context

It is necessary at this point to relate the study of Literature to the level and needs of the students in the existing set-up. According to (in the Syllabus Reform in English, 1976-77) Kantak and others, a reasonable competence in English is a pre-requisite for any meaningful study of its literature at an advanced level especially an understanding of its structure and varieties.

According to the report of the CIEFL Syllabus Reform in English (1976-77), emphasis should be on studying the text as a concrete product deeply rooted in a specific environment, students should be alive to the economic, social, political and
intellectual background of every selected period. Some of the suggestions put forth by Kantak and others (1976-77) are -

1. to encourage students to make first-hand responses to Literature with a view to developing their literary sensibility. This will bring into focus study of basic works along with main trends on the subject. Such a study will help the students to express their own response by getting them to check the works with the trends and compare the trends with each other;

2. to give students an opportunity to develop efficiency in the use of language for other purposes;

3. to promote a close, sensitive reading of the text;

4. to broaden students' understanding of the socio-economic and intellectual framework of Literature;

5. to compare works with Indian Literature;

6. to focus on background knowledge of the history and character of the people whose literature it is;

7. to encourage a more relevant system of testing, i.e., questions leading to standardized answers should be avoided.

Short and Candlin (1986) present the following suggestions related to the needs of students:
1. The concentration should be on texts, "knowledge of the particular social situation and the particular participants involved in the texts. This is only a part of what ethnographers of speaking regarded as the context of events deemed to be essential to the understanding of linguistic messages in general, and which teachers of literature implicitly draw upon in their commentary upon texts."

2. Literature and language teaching to be linked and made mutually reinforcing. Although language and literature may appear to be distinct from the point of view of the teacher, they do not, necessarily, appear so to the learner for whom literature is also language.

Therefore according to Brumfit (1986), teaching of literature must develop the literary awareness which is implicit in the learner's ability to use language at all, in order to make literature teaching successful.

The study of the nature of Literature as a subject would therefore include its basic concepts, literary forms, literary movements and prosody and their relationship to each other.

(a) Some of the basic concepts are - imagination, image and symbol, wit, irony, metaphor, tone, paradox.
(b) The different literary forms are comedy, tragedy, novel, lyric, epic etc.

(c) The literary movements are neo-classicism, romanticism, realism, expressionism etc.

(d) Prosody would include the metrical forms and free verse.

4.5 Conclusion

The view held today is that understanding is not achieved by mastery of description but by understanding the nature of a subject in terms of its basic concepts and principles. The nature of a subject as defined here relates only to students' needs in that particular subject and also their abilities in understanding the subject. The main components that come into this framework are -

(a) the subject specific concepts,
(b) principles,
(c) generalizations and their relationships to each other,
(d) the mode of inquiry,
(e) reasoning,
(f) the nature of each subject, their application to overall learning and the skills needed to understand the subject.

At the undergraduate third year, students are expected to acquire adequate understanding of a subject, i.e., an overall
grasp of a subject or a topic and not just factual information. The subject specific skills in each of the three disciplines in relation to their respective nature, and mode of inquiry stated in this chapter, can be realized in some of the learning activities for the students through the use of appropriate learning strategies. The strategy of noting in a lecture situation is the starting point. For example, students could be given practice in subject-specific skills through tasks like questions that would require them to analyse the information given by using the strategy of noting and other related strategies like 'inferring' and 'drawing conclusions'. This would be appropriate as a skill in Economics.

But before we actually set about formulating the Instructional Model of strategy-use, which would incorporate insights offered by relevant theoretical discussions regarding nature of disciplines referred to in this chapter, besides others, an analysis of students' note-taking is undertaken in the next chapter. This is in order to clarify further for the purpose of operationalisation, the concept of note-taking more as a strategy for comprehension than as an activity.