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Note taking in English lectures: A study of Omani EFL university students

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To My Loving Family
With my Great Indebtedness and Appreciation

ABSTRACT

Note Taking (NT), also Note-Taking or Note-Making, while listening (or from lectures) is one of the most widespread and frequent activities among students at universities and colleges in any field of study. In EFL classes, in spite of the common use of NT from lectures, this skill is sometimes regarded as passive and secondary to learning.

This study is an investigation of some aspects related to the way Omani EFL university students at Sultan Qaboos University (SQU) take notes during lectures delivered in English as well as the effectiveness of these notes, i.e. the usefulness of these notes in capturing the important information in lectures. Training in NT is also addressed in this study. Two groups of students were involved in this study: an experimental and a control group. The former group was involved in an intensive two-hour NT workshop after which their notes of a lecture were compared with previous notes taken before the workshop to study the changes in the NT strategies used. In contrast, the control group did not participate in the NT training; their notes were merely compared with those of the experimental group to study the NT strategies used by the two groups. This investigation involves the study of both qualitative and quantitative data taken from the students' lecture notes. In addition to studying the sample's notes, interviews and questionnaires were used to learn about the students' experience in NT and their opinions and attitudes regarding their NT skills by questioning their purpose of NT, the methods they use to take notes, and the factors they believe affect NT.

Results indicate that the sample's lecture notes are effective reproductions of the important information in the lectures they attended, for a good number of students were able to record more than 'one-third' of the important information units in the lectures which is what Hartley and Cameron (1967), among others, consider a 'reasonable' and 'generous' amount to expect to find in lecture notes. Also, simple training in NT was found to help students improve their NT strategies and habits.

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ABBREVIATIONS

SP	Speech Perception
LC	Listening Comprehension (or Listening)
NT	Note Taking
IELP	Intensive English Language Programme
CELP	Credit English Language Programme
EES	English for English Specialists Programme

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CHAPTER ONE
INTRODUCTION

1.1 Problem

Of all the language skills developed in English classes in some parts of the Middle East, Listening Comprehension (LC) is the least understood and least researched. I reached this conclusion through personal experience and knowledge of the educational systems in Iraq, Qatar and Oman as both a student and a language lecturer. It is widely believed that if you have a problem in LC, you need to study more, listen to the radio 'once in a while', and most importantly focus in class. Such advice, especially when it comes from EFL teachers, has a rather destructive effect on learners in the long run. Problems faced during listening are treated as secondary; they are considered problems that should be addressed by the learners themselves which explains the lack of awareness on their part of the basic skills (or sub-skills) of listening. Mistakes made when listening are therefore dealt with in an unscientific and impractical way; as a result, some Arab EFL learners' LC skills are quite weak. Some might deem such an observation as extreme or even unreasonable, but a quick look through the EFL programmes of some universities in the Middle East or simple observations of EFL classes in these parts of the Arab world can reveal a considerable gap between what and how teachers teach in class and how learners are expected to perform with respect to LC.

In most cases, such English classes start with a reading passage, then a simple discussion of the ideas in the passage, and end up with a written homework assignment. LC is believed to be eventually attained through the development of the other language skills in the programme; thus, LC gets less attention from teachers than neat handwriting. Curriculum designers do not always give teachers the freedom to dwell on the aspects of the lessons their students need to master before moving on to new material, and teachers are so concerned with covering the amount of material in the programme outline that it seems as if learners are not allowed sufficient time to internalise the language. Learners are, in most cases, taught the material in the course book, not the skills to understand the language. They are taught the general mechanics of reading, writing, and speaking but they are not taught

how to listen, which is quite disturbing since the first contact they have with the language is through listening. Some Arab EFL learners are not taught the mechanics of listening; they are taught to pass their courses and thus develop an incomplete competence in the language. Consequently, a considerable number of students who study English as their major end up having better reading and writing skills than speaking and listening.

The neglect of LC in some parts of the Middle East has been a big handicap of school and university language programmes in these parts of the Arab world; hence, many EFL learners in these parts face difficult in taking notes in class and depend solely on the written material in the book or on the teachers' notes. This means that these learners are losing invaluable information given in lectures and wasting time looking for information they are given by their teachers in class. One might wonder why this is happening when almost all the programs and textbooks used in developing Arab EFL learners' language and study skills are widely used in other countries around the world.

As far as LC and NT skills are concerned, scholars and EFL course designers around the world have produced manageable and useful handbooks that develop these skills for EFL learners of different levels and from different backgrounds. These courses seem very efficient and basically consist of cassettes, in which native speakers of English read out texts, and books with exercises that test comprehension of specific items in the texts or require learners to write down specific information from these texts. So if we accept that the books are adequate and available, and if the teachers are implementing them appropriately, and the students are trying to learn, why is there a problem and where should we look for the cause?

To the best of my knowledge both as an EFL learner of English in Iraq and a teacher of English in both Qatar and the Sultanate of Oman, NT in lectures (or while listening) appears to be one of the classroom activities most affected by the method of teaching listening to Arab EFL learners in the Middle East. Arab EFL learners in this part of the Arab world have difficulties in the field of LC in general and are handicapped in the skills that are integral parts of most events of aural communication; thus, they are missing a lot of what transpires in class mostly because of classroom practices.

In many English classes around the world, NT in lectures of English as a foreign language is one of the skills that is carefully developed with the help of teachers. It is a skill (or study skill) as complex as the four major language skills: listening, reading, speaking and writing, and itself incorporates the use of some of the sub-skills of these major skills as part of its process; therefore, NT in lectures involves the manipulation of listening and writing skills. Yet such an understanding of the overlap of the skills of NT in lectures with the language skills 'listening' and 'writing' is quite rarely addressed by teachers in the Arab world. If the neglect of developing effective NT skills side by side with LC skills in the curricula of some Arab EFL learners is in fact realized by few EFL teachers as a problem, very little seems to be done about it.

In the Sultanate of Oman, which is the focus of attention in this study, as a representative of the countries in the Middle East, neither LC nor NT have been the focus of attention in spite of the fact that these learners use (or need) both skills in class. As far as I am aware, no attention is being paid to NT in the Omani school curriculum in the Sultanate of Oman. A general review of the books taught in schools shows no trace of training in NT. NT is assumed to be developed individually by the students themselves and is not a skill to be discussed or trained in class. Here lies the main source of the difficulty that Omani university students face in NT. The pilot study conducted as part of this research (see 5.4 below) shows that the sample of Omani university students involved find capturing what the lecturers communicate in English difficult; hence, notes are not taken unless they are dictated or written on the board. This clearly shows the students' lack of skill in NT. In a lecture given to the Language Center teachers at Sultan Qaboos University (SQU), Ismaili (2005), from the English Curriculum Development Department of the Ministry of Education in the Sultanate, confirmed some of the observations made by the researcher regarding the lack of training in NT in schools in Oman.

1.2 Aims

This study aims at:

1. Investigating the effectiveness of the notes that Omani EFL university students take during lectures delivered in English.
2. Investigating three main aspects of NT from the students' point of view; namely:
    a. the purpose of NT,
    b. the methods they use to take notes,
    c. and the factors affecting NT.
3. Investigating the type of skills and sub-skills that Omani EFL university students need to develop to successfully perform a NT task in lectures.

This study draws the attention of EFL teachers in the Arab world to the nature of the processes performed by Omani EFL learners while listening. It discusses the problems Omani EFL learners at the university level, as representatives of learners of English in the Middle East, face when taking notes in lectures delivered in English and suggests remedial solutions. This study presents NT while listening as an active skill to be developed and taught by teachers in corporation with the skills of listening and writing. It treats NT as a sub-skill of LC with emphasis on the challenges Arab EFL learners face in lectures. It also draws the attention of EFL teachers and course designers at the university level in the Arab world to the value of NT as an exercise and skill directly relevant to the recognition and understanding of the language and subsequently the full comprehension of lectures. The study discusses the complexity of the skill of NT and the importance of developing it in a scientific way to enhance students' learning. It also calls for developing and integrating NT with other skills, i.e. to teach it side by side with grammar, vocabulary, writing, and reading, in order for the learners to obtain a deeper awareness of the language of lectures.

1.3 Research Questions

The questions that this study addresses are:

1. Are Omani EFL university students' lecture notes effective representations of the material delivered in lectures?
2. How effective is the training of Omani EFL learners in NT?

1.4 Procedures

The procedures of this study were as follows:

1. A survey of the literature was made on the initial processes of LC, i.e. the levels and stages of Speech Perception (SP), that EFL learners operate.
2. Another survey was made of the amount of attention given to LC in the curricula in Oman as a sample of the curricula used in countries in the Middle East by studying the courses in secondary schools in Oman, taking into consideration the Gulf Cooperation Council (GCC) agreement, which dictates what is taught in schools and universities in the Gulf.
3. Information from the students regarding the three aspects under investigation; namely: the purpose of NT, the methods students use to take notes, which involved the training they received in NT, and the factors affecting NT, was gathered over a period of eleven weeks through interviews and questionnaires.
4. The students' notes from two different lectures were studied in order to investigate the effectiveness of the notes in terms of whether they are adequate or inadequate representations of the material of the lectures.
5. A two-hour intensive NT workshop was developed and presented to one of the groups involved in the study in order to investigate the effect of such training in NT on students' notes. This was achieved through the comparison of the strategies (or methods) that students use to take notes after the completion of the NT workshop with the methods they used before training in NT is provided.

1.5 Limitations

1. The number of subjects was 28 students divided equally between two groups- control and experimental. The latter group was involved in a two hour NT workshop.
2. The material used in this study is live lectures developed for the purpose of this study. The topics used are related to the course within which this study was administered in order to indirectly encourage the sample to take notes.

CHAPTER TWO

LISTENING AND NOTE TAKING

'The palest ink is better than the most retentive memory'.
Chinese proverb (in Maddox, 1963: 96)

Note Taking while listening (or in lectures) is one of the important study skills discussed in most study skills books written for learners of all fields of study. Generally speaking, NT in lectures is as active a skill as listening, which stimulates it, and as challenging as writing, which is the end product. In this chapter, the first stage of NT in lectures, i.e. the perception and comprehension of speech, is discussed to shed light on the complexity of listening in lectures. Then, the nature of NT in lectures is discussed with emphasis on NT methods and the factors affecting NT, and a taxonomy is proposed of NT sub-skills. This is followed by an examination of some of the studies that have brought to the researcher's attention some of the aspects that have been investigated in this current study. This chapter ends with a discussion locating the current study in the literature.

2.1 Speech Perception and Comprehension

It is important to consider at this early point in the discussion the important terms: Speech Perception (or SP) and LC. Clark and Clark (1977: 175) state that comprehension begins with the speech sounds then the process 'takes in interpretation, utilization, and memory of the language'. When the speech stimuli reach the listener's ears, the sounds are analysed to identify what has been uttered; 'Because this end of the comprehension process draws heavily on the perceptual system, it is called *speech perception*'. This definition implies that SP is not separate from LC; SP is the initial step in the process to establish LC.

Garman (1990: 305) offers a similar definition of SP in addition to related terms:

> **perception** is probably best reserved for initial processing of the input; **understanding** is most usually regarded as the end product; **recognition** is used where the assumption of processing via stored forms in memory is strong; **interpretation** more usually carries with it the implication of creative processing, going beyond the strict properties of the signal; **comprehension** is a frequently used term, which acts as a cover for both **interpretation** and **understanding**.

As for the term listening (or LC), it has been defined in many ways that are not fundamentally different. Mudd and Sillars (1979: 25) state that it 'has to do with your ability to hear a sound and interpret it'. Yagang (1993: 16) defines it as, 'the ability to identify and understand what others are saying'. Listening is more than mere hearing (Fessenden et al., 1954: 179). Henning (1966: 31-32) states that while listening is a 'full-attention' and continuing process, hearing involves momentary awareness (see also Broughton et al., 1978: 65; and Widdowson, 1978: 59-60). Therefore, listening is not a simple skill since it involves a set of complex processes. Concerning this point, Howatt and Dakin (1974: 93) give listening four operations that are done simultaneously: 'understanding a speaker's accent or pronunciation, understanding his grammar, recognizing his vocabulary, and being able to grasp the meaning of what he says'. Putting it in a much similar way, Rivers and Temperley (1978: 63) define listening as 'an active process of constructing a message from a stream of sounds with what one knows of the phonological, semantic, and syntactic potentialities of language'. Field (2003: 18) states that there are two important stages in listening: sensation, which represents the experience of receiving the sound stimulus through the ears, as will be discussed in 2.1.1.1.1 below, and perception, which he defines as:

> the mental operation involved in analysing what the signal contains. The term 'perception' is applied to **lower-level processes**, where the language user is decoding information that is physically there.

In the perceptual process, words are matched to representations that are stored in the mind; this is called pattern recognition. Studies in cognitive psychology show that the process by which we recognize patterns involves: breaking the input into parts, matching the input to a representation based on previous experiences which is then stored in the long term memory, and allocating a category or identity to the sensation.

These definition put emphasis on the decoding of the message as the terminal point of the process with the reception (or perception) of sounds as the initial step (or stage) and the phonological, semantic, and syntactic possibilities as the instrumental medium to achieve the end. Thus, SP the initial practice of processing the stimuli in LC.

2.1.1 Stages of Speech Perception and Comprehension

There have been a number of attempts to understand and explain what happens during SP and LC; these attempts are as close as science can get to understand what really happens in the brain in communication. One of the early attepts was by Shannon and Weaver who proposed the Message Model of Communication in (1948). It explains how a speaker encodes his message and how the hearer decodes it by identifing the sounds, syntax, and meanings using his knowledge of the language. The speaker acts as a 'transmitter', the hearer acts as a 'receiver', and the vocal auditory path (or the sound waves) is the relevant channel (Akmajian et al., 1996: 346-347). The problem with this model, Akmajian et al. (ibid: 351) argue, is that it does not account for the richness of everyday language since it theorises that the receiver must employ the same system of rules that the sender uses to decode the message, which assumes that the speaker speaks literally and directly.

The importance of having a common code between the speaker and the listener has been stressed by Osgood and Sebeok's (1954) as reported by Stern (1983: 128) and Hörmann (1979: 59-60). Hörmann states that the receiver of a message must have the same repertoire or code of possible information or signs as the transmitter, yet they may not have identical repertoires because the events that have led to the development of these repertoires are different. Thus, acts of communication are only possible to the extent to which these two repertoires overlap. Baharati et al. (1996: 10) modify this view by claiming that the speaker codes the information he wants to convey by 'using his beliefs about the source of knowledge available to the listener', such as the listener's plans, processing capacity or even intelligence. Baharati et al. (ibid: 9) classify the sources of knowledge that the listener can make use of into two categories: the first is language (or linguistic) knowledge about the grammatical, lexical, phonological, pragmatic and textual system, and the second is background knowledge about general world knowledge, domain specific knowledge about the area on which communication is taking place, contextual knowledge relating to the verbal and non-verbal situation, and cultural knowledge (see also Lado, 1964: 33; Rivers, 1983: 80; Byrne, 1986: 13; Scovel, 2002: 50-51, 68; and Fromkin et al., 2003: 404). Flowerdew and Miller (2005: 26) add that the listener's knowledge of previous texts (spoken or written) can aid in comprehending subsequent texts; studies show that the listener's level

of comprehension is higher when he is familiar with the subject matter or the type of text he is listening to.

Denes and Pinson (1963) provide another model explaining communication which shares some basic principles with the Message Model. They (ibid: 4-7) argue that 'speech communication consists of a chain of events linking the speaker's brain with the listener's brain'; they call this chain of events 'the speech chain' which involves activity on three different levels on both the speaker's and listener's sides; namely: the linguistic, the physiological and the physical levels. The events of the speech chain start with the speaker who arranges his thoughts, decides what he wants to say and puts it into a 'linguistic form' by 'selecting the right words and phrases to express its meaning, and by placing these words in the correct order required by the grammatical rules of the language'; this selection represents the 'linguistic level'. Appropriate instructions are sent to the speaker's articulatory apparatus ordering them to move to produce sounds; this represents the 'physiological level'. The movement of these organs produces pressure changes in the surrounding air which travels to the listener; this level is the 'acoustic/physical level' of the chain. Then, at the listener's perception apparatus, the message is picked up and the process of the chain is reversed. Pressure changes in the incoming sound wave activate the hearing mechanism and produce nerve impulses that travel to the listener's brain along the acoustic nerve. This represents the second 'physiological level' of the chain. In the listener's brain, the nerve activity is modified by the nerve impulses arriving through the ear. Finally, the message reaches the second 'linguistic level', which takes place at the listener's brain, where the listener recognizes the words and sentences being transmitted and eventually the speaker's message (see also Crystal, 1987: 261; and Fromkin et al., 2003: 397-398).

The most common and widely supported model of SP is the Analysis by Synthesis Model. A number of linguists agree on the principle that the language processing and language understanding system used in listening involves an 'analysis by synthesis processing system'. This is normally carried out by an analysis of the stimuli that reach the processing system that the listener possesses and the synthesis of the available language and world knowledge to help him get the full meaning and predict what will be said next. Processing systems are of two kinds depending on their direction: 'bottom-up' and 'top-down' processing systems. These systems, Norman (1969: 70) argues, involve 'going from

initial stages of sensory transaction, through the extraction of critical features, to the recognition of input'. Norman (ibid: 41), Pinker (1994: 474), Goh (1997: 365), Tsui and Fullilove (1998: 433), and Fromkin et al. (2003: 576) state that any sequence of perceptual operations that starts from the incoming stimulus, i.e. extracts information directly from the sensory signal, developing through increasingly sophisticated analyses is called 'data driven', 'bottom-up', or 'text based' processing. This type of system, as the name implies, refers to the fact that if we draw a picture of the processing levels, placing the incoming data at the bottom of the picture with the increasingly sophisticated levels of analysis drawn in layers above, then the analysis proceeds from the bottom, i.e. from the small units of linguistic input, like phones, and proceeds to increasingly larger units like words, phrases and sentence structure, until the analysis reaches the top, i.e. the final recognition and complete semantic interpretation of the input. As for 'top-down' processing, Pinker (1994: 474), Goh (1997: 365) and Tsui and Fullilove (1998: 433) state that this system requires the use of the pre-existing knowledge to interpret the text and to create plausible expectations of what is to come next. Both types of processing systems (or directions of analysis), i.e. top-down and bottom up, must take place simultaneously to achieve comprehension (see also Field, 2003: 20-21 and Fromkin et al., 2003: 404). Pinker (1994: 184-185) explains the complexity this process:

> If one thinks of the sound wave as sitting at the bottom of a hierarchy from sounds to phonemes to words to phrases to the meanings of sentences to general knowledge, these demonstrations seem to imply that human speech perception works from the top down rather than just from the bottom up. Maybe we are constantly guessing what a speaker will say next, using every scrap of conscious and unconscious knowledge at our disposal, from how coarticulation distorts sounds, to the rules of English phonology, to the rules of English syntax, to stereotypes about who tends to do what to whom in the world, to hunches about what our conversational partner has in mind at that very moment. If the expectations are accurate enough, the acoustic analysis can be fairly crude; what the sound wave lacks, the context can fill in.

Therefore, in LC a listener to a native or foreign language makes different types of decision simultaneously: phonetic, phonemic, syntactic and semantic decisions. These

decisions are hierarchically related; they are made first at the lowest level, then the outcome provides a basis for further decisions at a next higher level and so on. The decisions reached at the lower levels are tentative and subject to revision depending on the outcome of decisions made at some higher level. These decisions are stored in the memory system of the listener until the final decisions are reached (Miller, 1962: 44). The fact that these decisions work together through the stages of speech processing supports the argument that the type of processing systems involved in SP are very complicated in nature. This gives more evidence to support the fact that bottom-up and top-down systems work simultaneously.

Akmajia et al. (1987: 436; 1996: 403) state that as the signal is received, it is handled by a set of four overlapping capacities in which the decisions are made. These capacities are arranged in a hierarchy, with the reception of the speech stimuli being the first moving on to higher-level capacities. Theses capacities are: the speech recognition capacity, in which speech sounds are identified from the sound waves, the syntactic parsing capacity, in which the words are identified and the structures of the sentences is analysed, the semantic interpretation capacity, in which the meanings of the words are put together in accordance with their syntactic relations, and the pragmatic interpretation capacity, in which a particular speech act is selected as the most likely (see also Garman, 1990: 188; and Harrington's, 2001: 93 adaptation of Caron's (1992) sentence comprehension processes). Field (2003: 66) reiterates the above arguing that syntactic and lexical analysis might occur together in listening, for 'listening does not happen one step at a time'; listeners start processing what speakers say while they are producing the utterances.

According to the views expressed above, the first types of decisions made during SP are related to the stream of sounds, moving on to the meaning of the words identified, then to the structure of the sequence of words grouped together. The last decision, i.e. that related to the identification of the words and sentence structure, overlaps with the end result, i.e. the comprehension of the sensory input. For more on the auditory, phonetic, and phonological decisions involved in LC, see Fry (1970: 48), Clark and Clark (1977: 195-200), Garman (1990: 186-188), Pinker (1994: 159), and Fromkin et al. (2003: 399-400). For syntactic decisions, see Fry (1970: 50), Johnson-Laird (1970: 262-267), and Fromkin et al. (2003: 403-407). And for lexical decisions, see Fry (1970: 51-52), Garnham (1985: 43; 69), Harris and Coltheart (1986: 135-136), and Fromkin et al. (2003: 70; 404-405; 596).

Flowerdew and Miller (2005: 23) state that in (1979), Bourne, Dominowski, and Coftus developed the Human Information Processing System model which describes the way we deal with messages in L1. This model shows how we 'acquire, retain, and retrieve information'. Flowerdew and Miller (ibid: 23-24) explain that when auditory messages are received by the sensory memory which detects the signal. The message is held for not more than one second in its exact form. The quality, source, and urgency of the message decide whether it is passed on to the short term memory or is lost. In the short term memory, the message is processed in 'fewer than 15 seconds' to decide whether it contains old or new information. If it contains old information, this information is checked against what already exists in the long term memory; however, if the information is new, the information is matched to the existing knowledge to make sense out of it. When the message is made sense of, it is then committed to the long term memory and is fully assessed.

Researchers have attempted to explain in depth the precise steps (or stages) of SP and LC based on the models available. We have an agreement on the processes by which the incoming stimuli are processed; what differs is the labeling that the researchers give to these stages. The following is a categorization of these stages as the researcher has chosen to label them depending on the principle behind each stage.

2.1.1.1 Speech Perception of a Native Language

2.1.1.1.1 The Reception Stage

According to Fessenden et al. (1954: 71-72), Rivers (1971: 126), Rivers and Temperley (1978: 63), Mudd and Sillars (1979: 28), and Finocchiaro (1989: 95-96), the first stage of SP is that of the perception of sounds. In this stage, the listener receives the message from the source, makes the proper phonetic decisions on it, and starts selecting what he needs. Rivers (1968: 141-142) calls this stage the 'filtering stage', for the listener selects what is important and leaves out the rest (see also Geddes, 1981: 78). The variable that governs the selection of information at this stage is therefore the purpose for listening. Having a purpose for listening is essential since, as Byrne (1986: 18) states, the message is often presented in a detailed form with certain information more than is needed for the listener to get the idea of the message. The listener does not and cannot listen to everything with the same precision and attention. Ur (1984: 15) adds that the listener has a 'switch off' mechanism by which he

chooses what he needs to listen for from what he hears. As the listener starts listening to the message, he selects some information, and during the later stages he makes other selections from what he has already selected and adds to them even new selections until he gets what he needs from the information. Mudd and Sillars (1979: 28) agree stating that filtering starts from the early stages when sounds are perceived and continues with the succeeding stages.

Rivers (1971: 126) explains that this stage is a 'sensing stage', a stage of perceiving that there is a systematic message rather than accidental noise; thus, what is heard is ordered and segmentated. It is a stage of rapid and roughly identified impressions, and it is relatively passive and receptive. This stage depends on echoic memory, which lasts for a few seconds, so the actual items heard should be interrelated in some meaningful way with other items if they are to be retained. The redundant items then pass from echoic memory and cannot affect interpretation (see also Mudd and Sillars, 1979: 28).

2.1.1.1.2 The Identification and Categorization Stage

Rivers (1971: 127) calls this stage: identification through segmentation and grouping stage. It involves segmenting at various levels as the phonotactic, syntactic, and lexical collocational rules of language are applied. In this stage, the listener uses the decisions reached at the previous stage and begins to identify and group the words and ideas into categories to prepare them for more analysis in the coming stage. Thus, the listener analyses the selected information from the reception stage and identifies its elements and sorts them in a certain way (see also Bruner's (1957) coments on categorization in Hörmann, 1979: 68).

The process of sorting involves an identification of all the items in the input which makes them easily grouped and ordered. This stage, Rivers (ibid.) argues, is active and detailed; it processes the signal sequentially and interrelates the segments already identified and those being identified within the structure of the utterance. Rivers and Temperley (1978: 63) state that the listener assigns the units he recognizes from the stream of sound categories and attributes to them functions in relation to other units until an intelligible message may be constructed; while he does so, he anticipates the gist of what is being said, holding segments already identified in his immediate memory, and readjusting his interpretation of earlier segments in accordance with the final message as he understands it. At this stage, memory is still auditory, but because of the initial grouping, which is tentatively meaningful, the

auditory segments are more easily retained. This power of retention makes it possible to suspend judgments where there is ambiguity of structure; the listener can hold the perceived segments in his mind until the necessary adjustments are made (Rivers, 1971:127).

This stage of SP is very complex; Fromkin et al. (2003: 401-403) explain that sounds overlap and influence each other in natural speech which makes segmenting continuous speech into phonemes, morphemes, words, phrases, and sentences a challenging task. Also, identifying and recognizing particular speech sounds when they occur in different contexts and when spoken by different people is not easy. The units we can perceive depend on the language we know, e.g. speakers of English can differentiate between /l/ and /r/ because these phones represent different phonemes in the English language. The ability to differentiate between phonemes is developed during the first years of the listener's life. The segmentation problem can be resolved by depending on context. They (ibid: 433-434) add that in order to understand an utterance, it must be parsed into syntactic structure, for 'meaning depends on word order and constituent structure in addition to the meaning of words'. In this process both top-down and bottom-up processes are used; the former uses 'semantic and syntactic information in addition to the incoming acoustic signal', while the latter uses the information in the sensory input.

2.1.1.1.3 The Recoding Stage

This stage overlaps with the preceding one to make readjustments with earlier interpretations. Rivers (1971: 128) calls this stage: the rehearsal and recoding stage; it takes place simultaneously with the ongoing interpretative process before what is perceived enters into long-term memory. Rehearsal refers to the process of recirculating the material through the cognitive system as it is related to what has preceded and what follows. Without rehearsal, the auditory material in the memory fades very rapidly and the listener would not be able to follow the line of thought. Recoding means that the listener makes his own coding of the material; he recodes it in a more easily retainable form until he has reached his final decisions about its meaning. Finocchiaro (1989: 95-96) states that this stage is a stage of understanding communicative expressions and syntactic structures; it leads to the final interpretation of the message. The process by which speech is stored into long-term memory

starts with receiving the message and placing it temporarily in the short-term memory; then, the main idea is selected and the essence is sorted in the long-term memory.

2.1.1.2 Speech Perception of a Foreign Language

Flowerdew and Miller (2005: 27) state that 'The processes we use as L2 listeners may be technically somewhat similar to those of L1 situations', but there are barriers to comprehension in L2 due to the additional processes involved in the analysis of the message. This means that the process by which the L2 listener understands the spoken form of the foreign language is not much different from what any L1 listener does in order to understand his native language. The difference lies in the sound system, the grammatical structures, and the meanings of words that the learner has to handle. Rivers (1971: 130-133) gives the following account of how speech in a foreign language is understood:

1. First comes the reception stage in which the learner receives the message, attempts to identify and select what he needs from it, and then tries to segment it into meaningful groups. The learner should be trained to make the right decisions, since once he makes an incorrect segmentation, the sound image is lost and adjustments by inference must be made. This initial selection that the learner performs is normally related to syntactic groupings, but he may also use semantic groupings when the former is complex.
2. Next comes the segmentation stage in which the learner depends on his competence in the foreign language to segment the stream of speech into meaningful categories. He makes use of the knowledge he has about what he does to speak in his native language and of the visual and kinetic signals introduced during speech to supply clues to meaning. At this stage, the learner must interrelate the segments he is holding in his short-term memory into larger groupings so that he would not lose what has been already retained. The learner should be trained to listen purposefully and be able to identify the various clues to syntactic interrelationships which would enable him to concentrate on the lexical content of the message. Thus, he makes use of his knowledge of reality to supply meaning when his knowledge of the foreign lexicon fails him.
3. Then comes the recoding for retention stage. The learner needs practice in detecting main relationships, abstracting the important forms from the complications of the surface form, and reducing relationships to basic expressions. If the learner cannot decode and

recode, he will convert what he hears into a simplified form in his native language; this means that he would learn to translate and re-translate in order to understand them and never develop his ability to comprehend the foreign language.

Flowerdew and Miller (2005: 28) add that when the message is in short-term memory, the L2 listener must access it automatically using the same 'automatic processing devices' (see Hetherington and Parke 1999) that the L1 listener uses; otherwise, if the L2 listener cannot use these devices, he needs to use controlled processing.

One of the interesting studies that investigated LC in L2 was carried out by Chaudron and Richards (1986) who explored the effect of using different discourse markers on second-language learners' comprehension of lectures. They (ibid: 115) report Yuan's (1982) observations that L2 listeners have difficulties paying attention to the development of the lecture because of their inability to recognize or their neglect of signals and markers of organization and sequence. They paid attention to decoding the information of the lecture, sentence by sentence, rather than extracting the information they need. Chaudron and Richards (1986: 115-116) state that to solve students' problems with discourse markers, some ESL instructional materials that deal with the teaching of lecture comprehension stress the importance of discourse markers in aiding comprehension; such materials give practice in recognizing different discourse markers in lectures. They (ibid.) argue that most research suggests that the L2 listener may benefit from knowledge of the macro-structure and discourse organization of lectures in addition to prior knowledge of the lecture topic. Prior knowledge helps top-down processing by 'initiating expectations and predictions' about the lecture. The discourse signals which the speakers use to signal the relationship between the parts of the lecture confirm and support these predictions. Meyer et al. (1980) describe two types of signals which are used by listeners: high-level information signals, also called 'macro-markers', and lower-level signals, such as 'well', 'so', ...etc., which act as filled pauses to give more time for listeners to process the information and provide the opportunity for bottom-up processing, also called 'micro-markers'. Research of Chaudron (1983) on pausing indicates that when native speakers speak to low proficiency learners, filled and unfilled pauses increase in frequency or length; this represents the speaker's effort to provide listeners with the opportunity for bottom-up processing by providing further time for processing.

Chaudron and Richards (ibid: 122-123) conclude that macro-markers, which are the higher-order markers that signal major transitions in lectures, are more helpful to lecture recall than micro-markers, which are the lower-order markers that signal segmentation and connections between sentences. Chaudron and Richards add that this finding is understandable in the light of the theory of information processing and top-down comprehension. The lecturers' signaling of major segments and emphasis aid the learners in organizing the major ideas in the lectures. On the other hand, micro-markers do not aid the learners' retention of the lecture content, for these markers 'do not add enough content to make the subsequent information more salient or meaningful'. Also, the use of these markers throughout the lecture results in making it appear somehow disorganized. Chaudron and Richards (ibid: 124) state, when using macro-markers, the speaker is paying some attention to 'phrasing and placement of the expression'. Listeners, on their part, anticipate and process what they hear and disregard minor pause fillers and redundant sentence connectors to make use of time to process the more significant parts of the text. This is why 'a lecture which uses more macro-markers is likely to be easier to follow'.

It is obvious that language learners face great challenges when dealing with speech. Titone and Danesi (1985: 47-48) argue that when listeners listen to their mother tongue being spoken, they do not process speech signals as separate sounds but as 'emic categories'; this means that they discriminate, in the flow of speech, meaningful or constant cues and categorise sounds into meaningful structures. This classification makes it easy to hear a series of meaningful verbal stimuli and reconstruct faulty or defective messages immediately. But when listeners listen to an unfamiliar language, they often hear strings of sounds and tonal changes which have no meaning. Buck (2001: 34) reports Henricksen (1984) arguing that even advanced L2 listeners can sometimes fail to understand language. In such cases, the linguistic and background knowledge available to the listeners aid in understanding the message, as discussed in 2.1.1 above. Buck (ibid: 50) adds that the L2 listener greatly depends on the knowledge available to him when dealing with gaps in comprehension. Some of these gaps are simple such as a word, but others constitute a huge portion of the message. In extreme cases, the L2 listener understands very few words. When the gap is in the linguistic knowledge of L2, the L2 listener compensates by using other

available information such as visual information, general background information, and common sense. Such compensatory skills are significant aspects of L2 listening.

The difficulties that the L2 listener faces must be taken into consideration when teaching/learning a foreign language since learners must have some control over the phonological, structural and lexical data before they can perceive or understand speech in the foreign language. This gives evidence to the complexity of listening to a foreign language.

2.2 Effective Note Taking in Lectures

NT is commonly known as a study skill that students need in any field of study; nevertheless, it is unfortunately sometimes regarded as passive and secondary, making it a kind of skill to be developed by the learners themselves without the help of teachers. However, when tracing the roots of the term 'study skill', one finds nothing passive or secondary about it. Tabberer (1987: 4-5) cites Devine (1981) describing study skills as 'those competencies associated with acquiring, recording, organizing, synthesizing, remembering and using information and ideas'. Thus, NT is a complex skill, for the competencies it involves require the meticulous processing of the input.

Most of the books that discuss NT are pedagogical in nature, providing students with advice and practice in the art of NT. One of the early books that discusses NT is that writen by Wright and Wallwork (1962). They (ibid: 44-45) differentiate between two terms: 'note-taking' and 'note-making' by arguing that the former is done while listening, whereas the latter is done while reading. These two different terms, according to Wright and Wallwork, basically mean one and the same activity: the activity which involves listing briefly, in an abbreviated form for purpose of speed, the most crucial facts, arguments, or ideas found in a heard or written text. Therefore, 'note-making' is 'a more leisurely process' than 'note-taking' since the notes taken while reading are done at a relaxed pace. Other scholars also differentiate between these two terms but in a different way; for example, Heaton (1975: 108) reports that some study experts prefer the term 'note-making' for it 'implies a more active and critical attitude to study' than 'note-taking'. Marshall and Rowland (1998: 153-154) explain that when listening to a lecture, one is 'making' notes rather than 'taking' them for the notes represent a reduced and 'consciously selected version' of the lecture content.

They (ibid: 154; 1993: 132-133) state that, 'note making' indicates that the learner is not making a 'passive record' of the material; rather, he is making notes through selecting and processing only the useful information for his purpose. In spite of these attempts to differentiate between the two terms, some still confuse the use of the two. Chambers and Northedge (1997: 84), for example, connect 'note-making' to noting from written texts, while 'note-taking' is used when talking about noting in lectures, yet they say 'making notes during a lecture' in their discussion. This either shows they support the previous claims that notes need active work and thus are 'made' instead of 'taken', or that there really is no difference between the two terms. This is why we use the term 'note taking' in this study to stand for the skill of writing down the important ideas from both aural and written texts.

Literature has provided more information on the skill of reading than on listening; hence, theories on the listening process were to some extent based on those developed for reading. It is generally agreed in the literature that much of what applies to reading applies to a great extent to listening (Rivers and Temperley, 1978: 213; Widdowson, 1978: 63; and White, 1981: 87-88). These two decoding skills are alike in many fundamental ways since they both involve somewhat similar rules of perception and processing. Howe and Godfrey (1978: 84-87) found that notes taken in lectures are 'basically the same in form' as those made while reading; thus, the two types of notes involve 'very similar activities'. Therefore, it is not surprising that some of what is advised on NT while reading is also advisable for NT while listening. To give a brief idea of what is said in this area, Northedge (1990: 43) and Chambers and Northedge (1997: 55) advise a person taking notes from a written text to "attempt to pick out the 'bones' of the text"; he should look for the relevant points to his purpose of reading. Chambers and Northedge (ibid: 57) explain this further stating that texts usually have a few central ideas which constitute the bones of the text on which the writer puts flesh, such as examples and evidence in order to talk the reader through the text and show him how the ideas work. Therefore, once the ideas are understood, the flesh is not needed. This is what happens in NT, the bones are stripped to uncover the skeleton structure of the arguments (see also Burns and Sinfield, 2003: 76). The most apparent difference between NT in lectures and NT from written texts is that the notes taken while listening are shorter and contain more abbreviations than those made while reading. This is due to the influence of the time restriction evident when taking notes while listening. Chambers and

Northedge (1997: 86) add that lecture notes do not have as much structure and clarity as those taken down when reading since 'In lectures, the emphasis is on speed' (see also Mace, 1968: 49; Salimbene, 1985: 81; and Howe, 1986: 82).

Since the main concern of this study is NT in lectures, it is of great significance to consider at this point of the discussion some of the aspects related to lectures as atmospheres where knowledge in communicated. To begin with, it is worth noting that lectures have been criticized by many since the 1920s; for example, Maddox (1963: 99), Hartley and Cameron (1967: 30), Heaton (1975: 39), Howe and Godfrey (1978: 10-11), Wallace (1980: 32), Howe (1986: 69), Chambers and Northedge (1997: 82), Marshall and Rowland (1998: 150-151), and Lewis and Reinders (2003: 66) all provide or report arguments against lectures as effective means of communicating knowledge. Even the definition of lectures has been critical; Rowntree (1988: 139) reports the following sarcastic definition of a lecture as: 'A method for conveying the contents of the lecturer's notebook into that of the student without passing through the minds of either party'. This is obviously a criticism of lecturers rather than lectures. Some lecturers, Rowntree (ibid.) continues, prefer reading their notes or writing them on the board for the students to copy instead of using them to remind themselves of the lecture points. Some students seem satisfied with this approach and happily write down 'as much as possible' which is a clear manifestation of passive learning. Burns and Sinfield (2003: 129-130) argue that NT is a form of active rather than passive learning since the learner takes responsibility for his own learning. In school, students are generally believed to be passive learners, for they depend to a great extent on the teacher which is why they might not take notes. When students are at the university level, they suddenly feel the change and discover their responsibility for their own development.

Despite the criticism against lectures, there have been many discussions of the usefulness of lectures and of the complex activities in which they involve the learners. Chambers and Northedge (1997: 84-85) argue that listening to lectures sets three challenging tasks for students: attend and make sense of the argument, think about what is said, and make some kind of notes. Lectures put students under pressure; they force students to make sense of what they listen to quickly thus forcing them to 'think on their feet'. The students may therefore miss some information, for listening 'intelligently' means that students make connections between the ideas they hear and those already in their minds.

This is why students must be selective in NT in order to take brief notes; otherwise, NT would distract from listening. The students must also balance between the amount of notes they take down and the speed at which they write. When the lecture is the main source of the students' information, they would have to write down a lot of information to ensure that they get down what they need, while fewer notes are taken when the lecture is backed-up with textbooks and handouts. When the lecture is full of information and is delivered in a monotonous way, the students would have to write a lot of information just to keep themselves alert, but when the lecture is lively and interesting, the students may learn better by listening more than taking notes (see also Marshall and Rowland, 1998: 159-160).

Taking into consideration that there are a number of factors affecting effective listening, the process of listening for the purpose of taking notes seems very challenging and complicated. Therefore, it would seem safe to assume that it is hard to think of effective notes without effective listening as the basic step. This assumption appears to be reasonable at first sight, but it also seems incomplete after a look at Carman and Adams' (1972) interesting discussion of the importance of listening. They contend that effective listening also depends on taking effective notes which is a way of saying that NT enhances concentration, as discussed in 2.2.1.1 below. In their discussion of effective listening, Carman and Adams (ibid: 8) argue that listening is a neglected skill, for students receive no training in listening despite the fact that it is 'the most used method of learning'. Research gives the following facts about how we listen 'effectively': firstly, we are usually unaware of the fact that as we listen, our attention wonders off, so we 'listen intently for 30 seconds or so, tune out for a short time, and then return'. Secondly, 'We hear what we expect to hear' which means that our past experiences, expectations, and even prejudices and beliefs determine what we hear; thus, we tune out what we do not want to hear. Thirdly, 'We do not listen well when we are doing other things'. And finally, 'We listen better when we are actively involved in the process'; once there is a purpose to be satisfied, listening becomes active and effective. Carman and Adams (ibid.) present students with a set of rules for effective listening which they call 'LISAN', the letters of which stand for: Lead, Ideas, Signals, Active, and Notes. These mean that listeners should anticipate what would be said, find the main ideas, watch for signals, be active, and take organized notes.

Howe (1986: 72) stresses the importance of active rather than passive listening to ensure meaningful notes in lectures. Active listening involves the intellectual tasks of understanding what is being communicated, selecting from this the most important points, and writing these down (see also Marshall and Rowland, 1993: 127-128; 1998: 150). Chambers and Northedge (1997: 86) give a summary of what a student who intends to take notes during a lecture needs to do in simple words; he should: know the purpose of attending a lecture and what he expects to take from it, make his mind ready to make sense of the topic by doing some relevant reading before the lecture, develop flexible listening, thinking, and NT techniques which he can adopt to the kind of lecture he has, evaluate his listening habits and find a NT strategy that helps him concentrate, write down only the main points of the lecture, and check notes and tidy them up after the lecture.

From the above, we understand that in order to be able to write a good set of notes, the person taking notes should actively intend to listen effectively with the purpose of taking notes in mind. We also understand that effective listening and NT are integrated. Without the first, the second will fail and vice versa. Nevertheless, effective listening and a definite purpose for listening and NT are not enough to guarantee effective notes; a person taking notes must also use a systematic approach to taking and reviewing notes. As Burns and Sinfield (2003: 123) put it, before writing anything down, a student should think of 'Why', 'When', 'Where' and 'How' to make notes.

2.2.1 The Purpose of Notes and Note Taking

Leathers (1982: 35) defines NT as 'a skill of value to all people if one considers the number of times and ways it may be used in all walks of life'; this clearly implies that there are many purposes and uses for NT. But the question here is whether there is an awareness of these purposes among teachers and students. Tabberer (1987: 102-103) states that in a teacher group discussion, the following purposes of notes were identified:

> (i) to create a record useful for a later examination; (ii) to create a record suitable for shorter term storage (e.g. to prepare for an essay); (iii) to get down important points regardless of the precise later use, merely to help someone to listen and concentrate; (iv) to help to bring about an active reinterpretation of what is heard or seen; (v) to act as

a brief reminder or an *aide memoire;* and (vi) or to serve as the basis for extensive new notes or broader reading.

As for the purpose of taking notes from the students' point of view, Rowntree (1988: 128-129) states that a number of students reported that they took notes in order to: help them understand what is heard or read, keep their attention, help them review what is learned afterwards, provide them with as complete information as possible of what is heard or read, provide them with a record of their own thoughts or examples, remind them of follow-up reading, etc., have ready material for revision for exams, sort out their own ideas on a topic, and plan for their future work.

Howe and Godfrey (1978: 57) report Howe (1972; 1974; 1975) giving the following functions of NT that influence learning: recording, attention, and encoding. The first function emphasizes the importance of NT as a recording mechanism, the second emphasizes the importance of NT to help learners pay attention to the information from which they learn, and the final function is suggested to contribute to learning in two ways: firstly, the notes prepared by the students' themselves may be more useful to them than any set of notes prepared by the lecturer because notes 'provide a version of the information presented which is more readily understandable' to the individuals themselves than any other version. Secondly, the encoding involved in the activities of taking notes may directly influence learning. The first of Howe's functions is what Di Vesta and Gray (1972) name the 'external memory' function, while the final function forms the 'encoding' process that they discuss (Di Vesta and Gray, ibid: 8; and Fisher and Harris, 1974: 291). The following is an account of the three NT purposes emphasized in the literature.

2.2.1.1 Note Taking as an Aid to Concentration

Wright and Wallwork (1962: 44) state that among the many reasons for NT is that it helps students sort out and separate the essential information in lectures or books from what is unimportant. This is a crucial ability for students to develop, for in higher education, students are not taught in the way they are accustomed to in school. They are simply provided with information either in the form of a continuous lecture or a list of books, forcing them to learn independently from their lecturers; therefore, good NT requires an appreciative, critical, selective, acute and quick mind. Maddox (1963: 96-97) agrees,

arguing that the act of NT itself may facilitate learning for it involves many senses. Although writing down what the speaker said may seem to distract the listener from paying attention to what the speaker would say next, 'writing and listening are not really incompatible'. Doing two things at the same time is possible when one of the things is done automatically, so one can listen and write a good amount of information simultaneously.

Other supporters of this claim are Carman and Adams (1972: 17), Parsons (1976: 35; 53), Purvis (1978: 8), Howe (1986: 80), Northedge (1990: 48-49), Chambers and Northedge (1997: 60) and Lewis and Reinders (2003: 75-76) who argue that the activity of NT helps students understand the material being noted by forcing them to pay attention. NT is widely believed to be an excellent way of preventing the mind from wondering off from the text and therefore helps the note taker to identify the core, the basic organization and purpose of the material. It involves great effort on the part of the person taking notes, for he tries to make sense of the words in the text and formulates the ideas in a way that would make sense to him by using his own words. Heaton (1975: 108) argues that taking notes helps learners become more involved in the process of learning by increasing their ability to concentrate. Broome (1982: 72) and Casey (1993: 38) agree stating that notes help students learn information because making a good set of notes requires 'active' listening; thus, NT keeps the note taker active while learning (see also Rowntree, 1988: 129-130).

Despite the above support for this NT function, and despite the available empirical evidence to support it, such as that provided by Howe (1970), a few researchers have expressed their reservations. Ngarari (1990: 20-21) reports Peters (1972) observing that 'note taking can only aid attention where the speed of presentation is slow'; hence, NT would interfere with listening and attention if the speed is high. Ash and Carlton (1953) have a more extreme reservation against NT; they maintain that 'note taking could have a detrimental effect on attention'. Ngarari concludes that in spite of the contradictory findings, NT clearly 'aids learning indirectly through exerting a beneficial effect upon attention'.

2.2.1.2 Note Taking as an External Storage Mechanisim

Maddox (1963: 103) states that experiments on memory show that human beings are limited recording instruments; thus, we 'cannot afford not to make notes'. Langan (1989: 248) adds that studies show that forgetting the information in lectures begins almost

immediately after the lectures end. Within two weeks after a lecture, more than 80 percent of what is heard is forgotten, and in four weeks only 5 percent might remain! Ngarari (1990: 18) refers to Jones' (1923) and McLeish's (1966) finding that 'only a little (less than half) of what is heard is retained by the end of the lecture, and this is even further halved as days pass'. Casey (1993: 90-91) argues that 75 per cent of the material covered in a lecture may be forgotten only 25 hours after the lecture unless students review it regularly. Although there is an inconsistency in these reports regarding the amount of information forgotten after lectures, these findings clearly show the importance of NT as an aid to memory.

Ngarari (1990: 18) stresses the importance of NT as a storage device for storing facts and ideas; therefore, notes provide the learner with 'an external copy or memory of information'. Howe and Godfrey (1978: 46) state that notes provide students with 'a substitute for memory'; this way the material can be learned through the written record. Northedge (1990: 48-49) reiterates arguing that notes can 'act, in effect, as a kind of *extension to the memory capacity*' of the note taker's mind. Maddox (1963: 96-97) explains that NT helps students overcome their limitations in recording and storing information. A careful and intelligent listener can only recall the general structure and arguments of a lecture immediately afterwards, but much of the detail fade very rapidly. His memory span cannot cope with a mass of factual details even for a short period and for familiar material; therefore, notes are an invaluable permanent record for subsequent revision (see also Carman and Adams, 1972: 17; Broome, 1982: 72; and Barrass, 1984: 45).

Wright and Wallwork (1962: 44), Parsons (1976: 35), Purvis (1978: 8), Howe (1986: 80), Casey (1993: 38), Chambers and Northedge (1997: 60) and Lewis and Reinders (2003: 75-76) state that notes not only provide material for tests but also raw material for further work such as, essays, participating in a discussion, etc. It is therefore important for a person taking notes, as Rowntree (1988: 130) states, to decide on the 'sort of future use' he has in mind in order to make full use of his notes. Northedge (1990: 50) argues that students should make sure their notes are brief, structred and complete to facilitate future use.

2.2.1.3 Note Taking as an Internal Storage Mechanisim

This function of NT is closely related to the previous one. Northedge (ibid.) states that it does not matter if notes are not reviewed after they are written, for the process of writing

the information down is 'valuable enough in itself'. Notes, Howe and Godfrey (1978: 42) argue, can perform more than one function for the learner; notes not only function as an external copy or memory of the information, as mentioned above, they can also 'perform the additional instrumental function of encoding'. They (ibid: 46) explain that NT is 'a valuable aid to learning' since it requires the students to think while they write down the selected information. Wright and Wallwork (1962: 45) argue that 'the mere extraction and writing of the notes will do a great deal to fix the relevant facts' in the note taker's mind. Following the same line of argument, Broome (1982: 72) states that since information is stored in short-term memory only for a brief period, it is forgotten very quickly unless notes are written down. The actual writing of the notes acts as a 'stimulus to VISUAL memory'. Hartley (1998: 79-80) argues that studies of NT in lectures confirm that in addition to relieving students from boredom, students are aware that the process of writing notes helps them remember the content of the lectures which in turn aids subsequent revision.

2.2.2 The Process of Note Taking in Lectures

Carman and Adams (1972: 17-18) maintain that most students do not need to be convinced about the importance of taking notes in lectures and do take notes regularly, yet very few know how to take effective notes and how to use them after lectures. Some discussions of what to do when taking notes in lectures have focused on the stages of NT. Kennedy and Bolitho (1984: 91-92) argue that NT is fundamentally a three-part process: stage one involves the successful comprehension of the message that is received, stage two involves the selection of what the note taker thinks is relevant for his purpose of NT by discarding 'superfluous material' and noting down only the content, and stage three involves the use of the notes for their 'final purpose', which might be a revision for an exam, a preparation for a talk, the writing of an essay, etc. Similarly, Howe (1986: 82) states that to produce meaningful notes in lectures, you must '*listen* with concentration so that you *understand* what is being said and, at the same time, *select* from, and *summarise,* what you have understood'. Therefore, the practice of NT requires careful organization and discipline. Berry (1994: 31, 2000: 44) stresses this arguing that, 'Without a strict organization, the process can degenerate very easily into chaos'.

Some NT stages have been stressed by experts more than others as prerequisites for good or effective notes. For instance, Palmer and Pope (1984: 76-77) stress the importance of understanding the material before noting it down arguing that 'All notes that are not accompanied by solid understanding are useless'. Others paid attention to the sub-skills involved in NT; for example, Drew and Bingham (2001: 38) maintain that effective notes should have the following characteristics; they should be: selective, i.e. not inclusive of or covering everything, easy to follow and understand later, highlighting key points, summarizing main points, clarifying initial ideas, giving enough details, and making the source of their notes clear so they can give references. Wright and Wallwork (1962: 48) assert the importance of the ability to select the central point in the material as the 'basis of good note-making'. Chambers and Northedge (1997: 86) assert that, 'What you get out of lectures is determined not only by what you do *during* them, but also by the work you put in *beforehand* and *afterwards*' (see also Howe, 1986: 72; Rowntree, 1988: 114). The following is more on the steps that listeners are advised to follow before, during, and after lectures:

2.2.2.1 Before Listening to Lectures

Before the end of any lecture, lecturers usually specify the topic of the following lecture; otherwise, students know the topic from the course outline. Lecturers expect their students to prepare for lectures by reading assigned texts or handouts, and they assume that students prepare for lectures and discuss the material on that basis. Preparation for lectures can also be done through the review of the previous lecture notes (Howe, 1986: 73). Thus, the process becomes more like a cycle than a series of unconnected steps.

Martin et al. (1977: 205-206) and Salimbene (1985: 87) state that reading assigned readings helps students make a list of the key words and phrases that are new to them. This would facilitate understanding and NT since students would not have to think about the meaning of unfamiliar terms while taking notes. Salimbene (ibid: 91) adds that an overview of lectures can also help 'develop expectations about the contents and organization of the lecture' which will make the main sections and sub-sections clearer and the material easier to note down. Also, McIlroy (2003: 30) adds that preparing for lectures helps students deal with all lecturing styles, which is a crucial factor that affects NT as will be discussed below. Wallace (1980: 60) supports this argument stressing that 'Positive note taking starts *before* a

lecture!' He advises students to ask themselves a number of questions before lectures about what they already know about the topic of the lectures, what they expect to learn, and how they will relate what they learn to other topics; such questions help students 'integrate the new information' with their existing knowledge (see also Parsons, 1976: 37; Salimbene, 1985: 82; and Burns and Sinfield, 2003: 131). Heaton (1975: 20) also stresses the importance of background information arguing that:

> The extent of the student's familiarity with the subject of the lecture and the background knowledge at his disposal are clearly enormous help in enabling him to determine the salient points of the lecture.

Marshall and Rowland (1993: 130-131; 1998: 152-153) reiterate the above adding students should also try their best to make themselves physically and emotionally ready for the lecture. They should arrive before lectures start to collect any handouts provided and make sure they do not miss the introductions of lectures. Rowntree (1988: 114) agrees adding that arriving early gives the students the advantage of sitting where lecturers can be heard and seen without difficulty (see also Maddox, 1963: 108; and Parsons, 1976: 37).

2.2.2.2 While Listening to Lectures

What happens during lectures is a complex operation that involves students in a number of different challenging tasks. Students should therefore know exactly what to do during the actual delivery of lectures in order to facilitate understanding and NT. There has been much advice on what to note down during the different parts of lectures, some of which is contradictory. For example, Lewis and Reinders (2003: 68) state that listening carefully to the introduction of a lecture is crucial for it usually provides: the topic, its importance, the main words or terms used, how the topic links to the other parts of the course, what the lecture does not cover, and even the organization of the lecture. Chambers and Northedge (1997: 86) agree that the beginning of lectures is a specifically important time for careful listening and making full notes. James et al. (1979: 6) explain arguing that taking 'detailed notes' at the beginning of lectures helps students tune into lectures since the context is weak at this stage. In contrast, Palmer and Pope (1984: 77) give different advice; they argue that it is more sensible only to listen in the beginning of lectures without attempting to record anything to avoid the distraction this might cause (see also Burns and Sinfield, 2003: 131).

More consistent advice is provided about what to note while listening to the body of lectures. It is agreed that students should not worry about writing everything down during lectures for that would affect their perception of what is being said. Wright and Wallwork (1962: 49) state that what should be included in notes are the basic structure, the essential facts, ideas, and the consecutive steps of the lectures. Chambers and Northedge (1997: 86) add that during the body of the lecture, only a few words can be noted, or a diagram can be drawn to illustrate the 'key points'. Examples and illustrations of the main point should also be noted down since they are helpful in reminding the students of the arguments in the lecture; also, names of main figures can help make connections between the lecture and the books. Burns and Sinfield (2003: 131) stress the need to jot down key points quickly maintaining the connections between these points clearly. If anything related to subject of the lecture is remembered, this should also be jotted down. Casey (1993: 39) advises note takers to rephrase key words in order to make understanding the notes easier later.

But capturing the main ideas and relating them in a systematic way are not easy tasks to achieve since students would be thinking while listening and writing. Salimbene (1985: 95) advises listeners to make use of 'thought speed', or the 'extra thinking time' that they have. She states that while listeners think at around '400 words per minute', lecturers speak at only around '125 words a minute'. The students should also properly use their thought time to 'think ahead' during lectures by trying to predict what the lecturers would say next; this recaps what Carman and Adams (1972) advise in 2.2 above. Salimbene (ibid.) gives steps for students to follow: first they should listen carefully, then decide what is important, and then write down the important information in the form of key words in their own words. These steps will guarantee more useful notes for future reference.

When notes are put in the form of key words, students would end up writing only what they think is essential rather than writing too much information, but there is danger here that they end up writing too little. Howe (1986: 82) argues that students usually take down 'about a third' of the information content of a lecture which is a fairly low percentage. However, Rowntree (1988: 139) states that 'it is probably better to err on the side of too *few* notes rather than too many' provided that this enables the note takers to concentrate better and that they are prepared to write the notes in a fuller form after the lecture. Rowntree (ibid: 116) adds that aiming to 'record the bare essentials' rather than writing everything the

lecturer says also helps students concentrate better. Rowntree (ibid: 139) explains that making useful notes involves a complex listening task which depends on understanding what the lecturer means; this, in turn, depends on how the listeners approach the lecture. This is why note takers during a lecture must pick out only the main ideas; then, they need to understand the overall structure of the lecture, and at the same time select what to note and what to disregard. Since note takers think differently and have different aims, some would end up writing too many notes, while others would write only a few words.

To help students in writing key words rather than full sentences, many discussions on how to take notes provide students with suggestions on how to reduce language to save time, i.e. what to leave out and what to keep while taking notes. Heaton (1975: 1-2) argues that content words, i.e. nouns, adjectives, verbs, and most adverbs, should not be omitted when taking notes since they carry the content of what is being said. Form words, such as auxiliaries, determiners, and pronouns, however, can be omitted from notes since they only provide the pattern or framework of what is being said and cannot affect meaning when omitted (see also Heaton, ibid: 2-3; and Salimbene, 1985: 95). Following the same approach of deciding what to and what not to note down, Martin et al. (1977: 205-206) repeat some of the above and suggest having the following in notes: negative expressions or prefixes, important diagrams drawn by the lecturer, correct figures, transitional expressions and conjunctions, or symbols expressing them, and whatever is written on the board.

Martin et al. (ibid.) also advise students to write down unfamiliar words or idioms and look them up in dictionaries or ask about them soon after the lecture finishes. Moreover, when the lecture is delivered in English, students should 'Take notes *in English*,' even if they find it uncomfortable at first. In addition, Barrass (1984: 47) advises students to note down the information contained in visual aids. Rowntree (1988: 116-117) adds that students should pay attention to the lecturer's comments on the material expressed in the visual aids because these might be more significant and worth noting than the visuals themselves (see also Maddox, 1963: 101; Heaton, 1975: 82-83; Parsons, 1976: 37; Howe, 1986: 81; and Langan, 1989: 248). Marshall and Rowland (1993: 131; 1998: 153) advise students to ask themselves questions while listening about 'the purpose, approach, content, structure, style and format of the lecture'. These questions are very useful since they can form the basis for the notes. Rowntree (1988: 116) asserts that questioning is the key to active listening;

listeners should evaluate what they hear at the same time they think of questions and should decide on what to write down (see also Parsons, 1976: 37; and Howe, 1986: 75).

Students are also advised to use symbols (or signs) and abbreviations in notes to stand for the ordinary words used in writing to make NT easier and faster (Wallace, 1980: 62; and Yorkey, 1982:185-186; Casey, 1993: 42). In addition to the advantage of speed, Heaton (1975: 22-23) states that certain signs can be used for more than one word or expression. For example, the equal sign ' =' can be used to express: 'is, equals, is the same as, is like, is equivalent to, is synonymous with, may be regarded as, consists of, is made up of, is called, represents, and is on a par with'. Adkins and McKean (1983: 14) add that symbols also help show the relationships between the paragraphs of a text. As for abbreviations, Mcllroy (2003: 30-31) stresses their value with respect to saving time at the critical moment of dealing with a huge amount of new information (see also Wright and Wallwork, 1962: 45-46; Maddox, 1963: 104; Purvis, 1978: 14; Palmer and Pope, 1984: 85-86; and Drew and Bingham, 2001: 38; and Sutherland et al., 2002: 384).

In addition, students are advised to listen for verbal clues and watch for visual clues, for such cues are very important aspects for understanding lectures and subsequently NT. Students are therefore advised to actively listen for these clues since they give a good picture of the organization of lectures (Martin et al., 1977: 206; Carman and Adams, 1972: 13; Salimbene, 1985: 99; and Casey, 1993: 39). Heaton (1975: 21-22), Wallace (1980: 57), Langan (1989: 248), Marshall and Rowland (1993: 132; 1998: 155) and Lewis and Reinders (2003: 67) stress the importance of carefully listening for verbal clues (or semantic markers) in lectures which they define as words or phrases that serve as signaling devices to point out the lecturers' intentions, ideas, examples, what is important, etc., and thus, the structure of the lectures. Non-verbal clues can also make the semantic structure clear through the visual display of points on a board, changes in facial expressions or gestures, and changes in the tone of voice to cue their main points (Martin et al., 1977: 206; and Wallace, 1980: 35).

2.2.2.3 After Listening to Lectures

Most of the advice given about what to do after lectures starts with emphasis on the urgency of reviewing notes soon after lectures end. Mace (1968: 51), Heaton (1975: 109), Barrass (1984: 52), Langan (1989: 248), Drew and Bingham (2001: 45), Casey (1993: 39),

Marshall and Rowland (1993: 136; 1998: 158), and McIlroy (2003: 30) all use one phrase to express this urgency; they stress that students should review their lecture notes 'as soon as possible' after lectures while the information and ideas are still fresh in the their minds.

Maddox (1963: 108), Carman and Adams (1972: 35), Parsons (1976: 52-54), Barrass (1984: 52), Rowntree (1988: 117), Lewis and Reinders (2003: 77) and McIlroy (2003: 30) emphasize the urgency of reviewing notes on the same day the notes are taken to ensure that recalling and identifying the main concepts take less time and effort. Langan (1989: 248) argues, 'A day later may be too late, because forgetting sets in very quickly'. This happens, as Howe (1986: 75) explains, because in spite of the fact that the contents of lectures can usually be remembered quite fully immediately after they end, this short-term memory fades relatively soon after students start thinking about something else. Revision helps fix the material of lectures in the long-term memory (see also Casey, 1993: 39). Burns and Sinfield (2003: 132) report Buzan (1989) stating that unless the students do something with their notes, they forget 98% of the information noted down in no more than three weeks. Notes taken in lectures should always be treated as first drafts; thus, the first stage of revising notes is actually refining them. McIlroy (2003: 57) adds that if a lot of time passes between NT and the review of notes, memory of the missing words in the notes will not help complete them. He (ibid: 184) continues that sometimes previously learnt facts can interfere with the learning and retrieval of new information and vice versa. Also, reviewing notes, Marshall and Rowland (1993: 136; 1998: 158) state, helps students check whether they understand everything they noted down. In addition, Barrass (1984: 52-53) argues that reviewing notes involves making sure that the notes can be understood whenever they are read in the future.

Despite the importance of reviewing notes, Howe (1986: 80) reports that research shows that a lot of students never review their notes after taking them. What needs to be done with notes while reviewing them has been the center of attention of many discussions on NT from lectures in the literature. Completing notes through further reading is the most common advice given for note takers (see Mace, 1968: 51-52; Heaton, 1975: 109; Rowntree, 1988: 118; and Burns and Sinfield, 2003: 132). Comparing notes is another way to improve or complete notes. Burns and Sinfield (ibid.) report Buzan (1989) arguing that comparing notes has two advantages: checking and revising notes (see also Barrass, 1984: 50; Rowntree, 1988: 117-118; and Chambers and Northedge, 1997: 86).

When notes are improved through further reading and comparing, students are advised to clarify them by making a distinction between main and sub-points, adding more information which they remember but did not write down during the lecture, adding comments and examples, filling in details, or restating ideas (Carman and Adams, 1972: 34-35; Parsons, 1976: 53-54; Martin et al., 1977: 206-207; Langan, 1989: 248; and Casey, 1993: 39). Missing parts of the notes should be filled in with the correct words that might have been unfamiliar while taking the notes which can be found in the textbook and dictionary (Mace, 1968: 51-52; and Casey, ibid: 40-42). Carman and Adams (1972: 34-35), Parsons (1976: 52), Palmer and Pope (1984: 76-77), Howe (1986: 81) and Langan (1989: 248) state that notes should be put in an intelligible way that enables the person who wrote them to understand them whenever they are revised by completing not only the missing or illegible words but also unfinished sentences. In order to cut the time needed to write notes in a legible fashion, Barrass (1984: 53) states that an attempt should be made during lectures to write legibly by paying attention and thinking about the points mentioned to carefully select only what is important; this should be easy if the lectures are well organized and presented (see also Martin et al., 1977: 205-206, Rowntree, 1988: 143, and Marshall and Rowland, 1993: 132; 1998: 155-157). Students who do not wish to or have no time to make their notes legible after lectures, Casey (1993: 39) maintains, could instead go through their notes to organize them by using coloured pens, underlining headings and sub-section titles, and circling or drawing boxes around important details in any form they wish. Rowntree (1988: 145) stresses that to enhance memory, notes should be thought of as graphic designs, with each page making a 'visual pattern'. An outline form is recommended by Carman and Adams (1972: 34-35) as a good visual pattern to organizing notes. More advice has been given in this respect with attention on the need to make notes complete and readable more than simply rewriting them neatly. Heaton (1975: 109), Barrass (1984: 53) and Salimbene (1985: 105) discourage students from wasting their time in rewriting their notes simply to make them neater. Palmer and Pope (1984: 76-77) explain arguing that notes are not marked by teachers but are for the use of the note taker himself.

After reviewing and studying their notes, Drew and Bingham (2001: 33-34) state, students should be able to: review their NT styles and evaluate the effectiveness of their notes to improve the way they take notes, identify their purpose in taking notes and how it

influences the type of notes they take, use the suitable methods of NT for the purpose and the subject matter, and check and improve the clarity of their notes. Williams and Eggert (2002: 177) agree adding that one of the most important characteristics of effective notes is the clarity of the relationship between the main and minor ideas; thus, a good test of the effectiveness of a set of notes is whether or not a person who is unfamiliar with them can easily follow the links between the ideas.

To summarize the above NT stages, let us look at the NT process from the point of view of Carman and Adams (1972: 18) who give the following five steps to better NT: preview, select, question, organize, and review. Students should 'lead rather than follow' by relating what the lecturer is saying to their own interests and needs. They should be selective in what they note down and question continuously. And students should organize their notes to make them easier to remember and revise them as soon as possible after lectures.

2.2.3 Note Taking Techniques

There are different types of NT techniques (or methods) that students should be aware of before attempting to take notes; some techniques are known and more frequently used than others. In ideal situations, knowledge about NT techniques is introduced to students at school; however, Broome (1982: 72) states, many students at school experience only a limited form of NT; thus, taking notes from dictation or from the blackboard are the most common methods to most high school graduates. This is why many students find the transition to the active role of making their own notes difficult when they begin their higher education at the university. Mace (1968: 50-51) makes an amusing comment concerning this issue stating that school teachers are better trained than university teachers, so when reaching their university education students need to prepare themselves for the possibility that they 'will receive the best education in the world by the world's worst teachers'!

Many study skills books provide different NT techniques that students can choose from to take notes in lectures. These books also advise students to devise their own NT techniques suitable for their way of thinking and studying. Heaton (1975: 24), Martin et al. (1977: 205-206), Barrass (1984: 45), Palmer and Pope (1984: 78), Howe (1986: 80; 83), Casey (1993: 43), Fairbairn and Winch (1996: 28), Chambers and Northedge (1997: 59; 84-85) and Turner (2002: 62) all assert that there is no one best way to take notes in any given situation.

Students who attend the same lecture take different notes for they select different points and arrange them in different ways. Palmer and Pope (1984: 87) explain that 'Good note-taking combines the recording of useful information with alert thinking'; therefore, students should liberate themselves to use the NT techniques which are lively and amusing for them. Choosing the NT method suitable for any note taker is basically 'a matter of personal preference', as Casey (1993: 43) puts it. Chambers and Northedge (1997: 59) argue that, "Making notes is more a 'strategy' than a skill". It requires flexibility and creativity on the part of the note taker. They (ibid: 84-85) add that NT not only depends on the purpose of attending the lectures and the kind of lectures they are but also the way the student learns best. If the student needs to write a lot of notes to reduce his anxiety and keep him alert and active, then this is the right approach for him (see also Marshall and Rowland, 1998: 155).

Mace (1968: 49-50) and Heaton (1975: 108-109) state that when attending lectures, students do one of the following three NT activities: at one extreme, one gives complete attention to grasping what is said without taking any notes, at the other extreme, one writes down every word that is said, and the intermediate method is to note down only the important information. In the first activity, memory is trusted to preserve what is important to remember, which is a dangerous way to deal with lecture information, for, as Heaton (ibid.) states, the ideas that students deal with in a lecture tend to quickly disappear after the lecture. The second method is only possible if the lecturer is dictating the lecture. The drawbacks of this method are: much of the redundancy characteristic of lectures would be noted down, students will also find it difficult to decide on what is important when revising the notes, and they would have little time to reflect on and digest the content.

Some of these methods are recommended more than others depending on two main factors. Barrass (1984: 49) and Rowntree (1988: 129-130) state that the NT purpose that students have in mind decides the amount and type of notes they should make. Drew and Bingham (2001: 35) state that if the purpose of taking notes is, for example, for future revision, the notes must contain the main points of the lecture to make them easy to understand a long time after the lecture. The second factor that dictates the method and amount of notes taken relates to the way the material is presented and the type of lecture attended. Maddox (1963: 101) and Heaton (1975: 108) state that in factual expository lectures, notes should be detailed 'word for word'. The note taker's background knowledge

of the subject of the lecture plays an important part in determining how much to note. The more unfamiliar he is with the lecture, the more notes he needs to take.

Maddox (1963: 101), Barrass (1984: 49), and Rowntree (1988: 137) add that notes have to be full if no other source for the information communicated in the lecture is readily available in textbooks or elsewhere. However, in spite of the usefulness of the 'word for word' method, it does not always seem feasible for students to correctly capture what is unfamiliar in writing. Also, an overuse of this method can show that the students have not prepared for the lectures. Mace (1968: 50) maintains that for most purposes, taking no notes but paying great attention and depending on memory is recommended, but because of the disadvantage of this method together with the 'word for word' method, taking notes of only the important information in whatever form is the most suitable one. Salimbene (1985: 82) criticizes both the 'word for word' and the 'taking no notes' methods arguing that both techniques are 'extremely inefficient', for they postpone understanding. Good NT involves 'listening, comprehending, and writing during the lecture' which save time and promote learning since 'Learning is a product of effective note taking' (see also Turner, 2002: 56-57). When asking students what they consider 'good notes', they stated that good notes are tidy, legible, and include the important points of the lecture (Badger et al., 2001: 412).

In conclusion, the way notes are written in lectures depends on why they are taken as well as the source from which they are taken. Students need to make sure they use the technique that works for them; they can devise whatever format they find suitable by improving on what is generally used. Rowntree (1988: 132-133) states that although there are only three ways to take notes: prose summary, skeleton outline, and patterned notes, these techniques can be combined in several ways. For example, a note taker may draw a diagram and add explanations to it. Thus, there is no perfect way to take notes, for as long as the notes achieve the purpose for which they were written down, these notes are good. The following is an account of the three most common NT techniques found in study skill books:

2.2.3.1 Outline Notes

Nearly all the available advice about NT asks students not to take down too many notes by concentrating on the essentials. This is why we chose to begin the discussion of NT techniques with outline notes which is the method most recommended in the literature.

Maddox (1963: 101), Carman and Adams (1972: 18), Heaton (1975: 108-109), and Howe (1986: 82) assert that this technique is the most satisfactory method to take selective notes of what is important and reflect on the relationship between the different ideas expressed in lectures. Carman and Adams (1972: 31) call this technique 'logical outline' arguing that it is a powerful tool for thinking, for the analysis it involves to discover the organization of the material helps note takers arrange the material in a logical form, making learning faster and remembering easier. They (ibid: 34) add that this method 'is the most effective way to take notes'. Outline notes are regarded by many students, Howe (1986: 83) asserts, as the 'ideal' NT format, for most lecturers use outlines in arranging their handouts and the notes they put on the board, and many students usually take down only a third of the information in lectures. Thus, selective notes help students record 'the most salient third of the lecture' rather than writing everything down (see also 2.3.1 below).

Maddox (1963: 102) agrees that 'detailed' outline notes have the advantage of being 'readily visualized and reconstructed in memory'. Rather than writing all the time, students can listen more and think intelligently about what is said, for good outline notes can only be made after understanding the lecture. The points should be connected with the suitable transitions leaving plenty of room for further elaboration or expansion after the lecture. Illustration can be re-constructed easily if the right points are taken down and the notes are completed on the same day. If the notes are left for a week later, it would be hard to remember the context of the illustration. Reviewing outline notes involves rapidly going through them to make sure that meaning is clear and the information is complete; listening to the summary of the lecture can also be used to complete notes.

In addition to taking detailed outline notes, students could also take notes in the form of a 'skeleton' outline and pay more attention to listening to the lecture. Palmer and Pope (1984: 78) call skeleton outline notes 'key word noting'. They argue that this technique is best explained with the metaphor that considers a text a living body that has a basic structure similar to a skeleton with its main points resembling the vital organs. In order to focus on the central words or phrases, the skeleton and the major organs must be isolated. The advantage of this technique is that it saves time and provides quick access to the material. It can also, they (ibid: 85) add, promote both knowledge and confidence if the note taker stays alert, thinks while he takes notes, and does not attempt to learn everything right away. This

is why the key word technique 'works well' for NT in lectures. However, the problem in NT from lectures using the skeleton technique is that key words are not easy to isolate, so the note taker usually ends up writing too many notes which is, on one hand, better than writing too few, but on the other hand, involves careful selection of the 'real' key words and concepts after the lecture. When this technique is used, the note taker should aim to have a 'solid skeleton to build on, rather than something that may be all flesh and no bones'.

Maddox (1963:103) favours detailed outlines to skeleton outlines for the former provide details and involve a better balance between listening and NT. The choice to use either one of these methods depends on the type of lecture the note taker is attending. Skeleton outlines are more suitable for literary or philosophical lectures, which are designed to stimulate students to think, and in lectures where topics are familiar to the students. Wright and Wallwork (1962: 44; 46) favour skeleton outlines or 'tabulated notes', as they call them, for they provide good notes with a clear content at a glance. Skeleton outlines help show the main ideas and the relationships between them in a better way than any other NT technique, which is why many students favour these notes (Rowntree, 1988: 137).

Proper indentation of the ideas noted down in both skeleton and detailed outline notes is an important element in such notes. It involves selecting the main points and grouping them under headings and sub-headings which reflect the content of the groups; thus, ideas are organized hierarchically into levels. Carman and Adams (1972: 34) stress the importance of having form in such notes; consequently, symbols are used in this technique, such as I, II, III ..., A, B, C, ..., and 1, 2, 3 ... , to signal the main parts of the lecture, the key ideas, and the supporting details respectively. This way the outline would have three levels of signaled and indented branches in the form of single words, phrases, or sentences depending on the note takers' preference. Using indentation alone to signal the different levels showing the different parts of the lecture is also advised (see also Heaton, 1975: 24; and Salimbene, 1985: 98). But taking down notes during lectures in this form is not as easy as it might seem.

2.2.3.2 Linear Notes

While note takers are selective in outline notes, they write everything down in linear notes. In linear notes, or 'sequential notes', as Barrass (1984: 47) calls them, students need to record not only the main points and as much as possible of the details, but to record them

in the exact order in which the lecturer puts them. Taking this verbatim record of lectures is, Maddox (1963: 101-102) states, based on the mistaken belief that 'lecturers, being also examiners, like to get their own words and phrases back'. Practically speaking, to take down everything that is said is impossible unless students are good shorthand writers, for the speed of delivery of most speakers is about 130 words a minute, which is a challenging speed to catch up with when writing. Students who take detailed and long notes, Maddox (ibid.) contends, usually do so 'as a kind of safety measure' when they have a problem understanding the lecture fully and discriminating between the essential and the redundant.

In addition to the fact that many students are slow writers, which makes catching up with lecturers challenging if not impossible at times, this NT method has some other drawbacks. Maddox (ibid: 102) states that note takers may be so involved in writing that they miss important things in lectures. Revision can also be difficult since it is hard to organize pages of details. Barrass (1984: 45-46) agrees criticizing this method as a waste of time for it allows students little time to listen, think, and select; hence, it does not allow critical interest in lectures. It also does not allow an effort to understand and learn and does not encourage students to ask questions. In addition, during revision, students need to read the notes thoroughly with the aim of picking out the essentials which means that students are forced to do everything twice. Burns and Sinfield (2003: 124-125) add that this passive technique may make the note taker panic when he misses things; also, he may feel he fails when he leaves things out (see also Palmer and Pope, 1984: 86; and Rowntree, 1988: 137). In spite of these disadvantages, students still use these notes quite often, for they help recollect the development of the arguments in the lecture (Barrass, 1984: 47). Also, if the information contains a list of facts, students could write these down without reflecting on their importance (Heaton, 1975: 82-83). Turner (2002: 58) adds that 'Linear note-making is associated with left brain functions, emphasizing the traditional academic skills of verbal reasoning and organising'; however, linear notes are not as creative and easily memorable as mind maps, which are associated with right brain functions.

2.2.3.3 Pattern Notes

In pattern notes, brief words and phrases are used instead of full sentences to write down the essential key point of the material; thus, it is similar to skeleton outline notes but

with a different format or layout. This NT technique goes by various names one of which is 'branching', for the result looks somewhat like a tree diagram. Other known terms for it are: 'spray-diagrams', 'mind maps' or 'spider diagrams' (Chambers and Northedge, 1997: 57). Turner (2002: 58) prefers to use the last term, for the result to him looks like a spider, and Marshall and Rowland (1993: 133; 1998: 154) use the term 'explosion charts', but we have chosen to call them 'pattern notes' to acknowledge Buzan's effort to advocate them.

Parsons (1976: 38) and Howe (1986: 85) state that Buzan (1974) devised this technique to take notes from both lectures and books. It is a creative pattern in which the main idea in the form of a word or phrase is put in the center of the page; then, related facts, also in single words and phrases, are placed around it. These sub-points are connected to the main idea by lines that show their relationships; the more important ideas are placed nearer to the main idea in the center of the page. In order to take pattern notes in lectures, Burns and Sinfield (2003: 125-126) state, the note taker must follow a set of stages. Firstly, the note taker must brainstorm what he knows about the topic and what he needs to find out. Secondly, he needs to decide on the type of information sought, e.g. names, dates, etc., and engage with the material in an active way so as to identify what he seeks to find. Thirdly, he must write down the key words roughly at first using a branching technique, starting with the title in the middle of the page and key points drawn away from it and sub-points drawn away from them. Then, he needs to review the rough notes to decide on what to keep and what to leave out. And finally, he can add colour or pictures to show the points more clearly which act as memory triggers (see also Casey, 1993: 40-42; and Turner, 2002: 21).

Turner (ibid: 21-22) states that a mind map created by a learner can be useful in helping him integrate different ideas on one topic together. Marshall and Rowland (1993: 133; 1998: 155) report Buzan's (1974) advantages of these notes over the linear notes. First, the relative importance of the ideas in the notes are more clearly defined. Second, the links between the main concepts are easily recognizable which makes recall and review more effective and quick. Third, the structure of the notes allows additions of new information without having to scratch out or squeeze in information. And finally, each pattern looks different from the other which aids recall. Parsons (1976: 39) adds that these notes are quicker to write and read because of the use of words and phrases, and students can save paper for the notes are brief (see also Howe, 1986: 85-86; and Casey, 1993: 40-42). Wallace (1980: 41) adds to the

importance of this technique that these notes help students 'reconstitute the totality of the speaker's thought' by showing the relationships between his ideas; thus, these notes can reveal the structure of badly-presented lectures. Marshall and Rowland (1993: 133; 1998: 154) state that the note taker can represent the structure of the material as presented by the speaker or as he prefers depending on the way he intends to use it. Burns and Sinfield (2003: 128-129) argue that pattern notes are the best and most active and interactive form of NT for they not only help record key points but also learn them because they represent a short version of the information in the lecture. The practice of selecting the essence of what is said and arranging it keeps the note taker 'actively engaged' with the information being noted which ultimately facilitates learning.

Not many disadvantages have been reported for pattern notes; however, Howe (1986: 85) argues that this technique looks eccentric to many; therefore, many students do not trust it. Rowntree (1988: 137) states that some students argue that pattern notes do not show 'the logical step-by-step structure of an argument' and blame this on lack of space. Barrass (1984: 49) adds that because of lack of space, the notes must be restricted to key words or phrases in one page; no space is available for definitions, references, and sentences, there is no space for corrections or additions, and recording logical development in hard.

2.2.4 Taxonomy of Note Taking Skills and Sub-Skills While Listening

The idea behind taking notes in lectures is to receive the information, process it, understand it, select the main points and some supplementary details, and write these down. The person taking notes must therefore be able to use the processing skills available to him to recognize and select the essential parts of the lecture. Since the information is received via the aural medium, the note taker is required to use his listening skills and sub-skills in order to take notes. The kind of listening skills used in this task totally depend on the purpose of listening and the type of material sought. This means that the relationship between listening and NT skills is very strong and the achievement of the latter is to a great extent dependent on the proficiency of the former. This suggests that a number of the skills used when processing speech, i.e. listening skills, are common to NT.

A quick search in the Internet provides ample advice about NT as a skill to be developed by the learners themselves. However, the available literature deals with NT as

merely a study skill, not taking into consideration that it is as active a process as listening and writing; it can be considered even more complex than both, for it involves both these dynamic skills. The literature also misses an integration of the processing involved in LC with that in NT. In order to make the connection between these two skills, we have to start with an examination of the sub-skills involved in each.

2.2.4.1 Listening Comprehension Sub-Skills

As discussed in 2.1.1-2.1.1.1.3 above, SP involves three stages with a number of decisions about the input made at each stages. These decisions are closely related and complementary to one another; they relate to the listener's ability to make certain judgments about the whole input or to reply to it. The listener needs to possess skills to make these decisions; these skills are better named sub-skills for they constitute lower (or deeper) level decisiosn under the main skill of listening.

In order to specify the sub-skills of LC, we need to look at those specified for reading, for, as discussed in 2.2 above, it is agreed that what applies to reading applies to listening. Dean and Bryson (1961: 460) state that in both processes you receive a message and attempt to extract from it the intended meaning. Rost (1990: 8) states that studies that emphasize cognitive and meta-cognitive skills, which are those skills used to create 'plausible expectations about the text' and sense the type of inference needed to understand it, show that although listening and reading are different decoding skills, i.e. aural vs visual, there are cognitive strategies common to both. Chela-Flores (1993: 24) agrees stating that much of the research in listening and reading makes the assumption that, 'after a word is identified, the cognitive processes and the mental representations elicited by these two modes of input are the same'. Wallace (1980: 29-30) adds that NT while listening shares not only basic language processing levels with NT while reading but also basic NT skills and sub-skills.

Given that the sub-skills for listening closely parallel those for reading, as Field (1998: 112) states, breaking listening into sub-skills supports the same diagnostic approach as that adopted for reading by Grellet (1981) and Nuttall (1982) which regards efficient reading as dependent on a set of sub-skills (for more on specific RC sub-skills, see Ekwall and Shanker's (1985: 16) review of Davis' (1944) sub-skills). Thus, listening sub-skills specifications provide a checklist against which many breakdowns in understanding can be

amended. To prove the strength of the connection between the levels and sub-skills involved in RC and LC, a useful categorization of comprehension sub-skills, i.e. for both RC and LC, is presented by Irvine-Niakaris (1997: 17) based on the communicative teaching proposals put forward by Canale and Swain in (1980) which are originally based on the conception of communicative competence offered by Hymes (1972). Communicative competence comprises: linguistic competence (dealing with the knowledge of form and basic grammatical structures), sociolinguistic competence (dealing with the ability to use language appropriately in different contexts), discourse competence (dealing with cohesion and coherence), and strategic competence (dealing with verbal and non-verbal strategies) (see also Munby's, 1978: 126-129 taxonomy of common RC and LC sub-skills).

Despite the similarity between reading and listening, there are a number of differences between the two skills; for example, listening requires more unbroken attention than reading; thus, the reader has more control over the input which helps him dwell on whatever part of the text he chooses. Also, in speaking, factors such as the physical presence of the speaker, variation in pronunciation or dialect, pauses, false starts, etc, can affect listening either positively or negatively (Dean and Bryson, 1961: 12; Rost, 1990: 9; Goodwyn, 1995: 22; Lynch, 1998: 11; and Scovel, 2002: 51). Thus, the difference in the processing modes between listening and reading is that readers recall more information and in greater detail than listeners, while listeners recall proportionately more main ideas and do more inference work (Lund 1991 as mentioned in Lynch, 1998: 11). These differences between reading and listening have brought about differences in the sub-skills of the two skills. Just as there are specific lists of skills for reading alone, there are specific lists that only apply to listening. For example, Munby (1978: 123-126) gives the following set of skills specific for listening:

1. Discriminating sounds in isolated word forms and in connected speech.
2. Discriminating stress patterns within words and recognizing variation in and the use of stress in connected speech.
3. Understanding intonation patterns: use of tone in respect of tone variances and interpreting attitudinal meaning through variation of tone or nuclear shifts.
4. Interpreting attitudinal meaning through pitch variance, pause, or tempo.

Another useful categorization of listening skills (or sub-skills) is proposed by Rost (1990: 152-153) in which she offers the following three categories of skills: skills

emphasizing perception, skills emphasizing interpretation, and enacting skills. Each of these skills includes further sub-categories. The first involve recognizing prominance within utterances, including the sub-skills of: perceiving and discriminating sounds in isolated word forms, discriminating strong and weak forms, identifying uses of stress and pitch in connected speech, and adapting to speaker variation. The second skill involves:

- formulating a propositional sense for a speaker's utterances, which includes the sub-skills of deducing the meaning of unfamiliar items and ideas,
- formulating a conceptual framework that links utterances together, which includes the sub-skills of: recognizing indicators of discourse, constructing a main idea in a stretch of discourse, distinguishing main points from supporting details, identifying elements in the discourse that help form schematic organization, and selecting clues to complete schematic prediction.
- interpreting the speaker's intention(s), which includes the sub-skills of: recognizing changes in prosodic gestures (e.g. pauses, tempo, pitch range, etc.), identifying the speaker's contradictions, inadequate information, and ambiguity, differentiating between fact and opinion, and identifying uses of metaphor, irony, etc.

The final skills, i.e. enacting skills, involve utilizing representations of discourse to make appropriate responses, which include the sub-skills of: selecting salient points, reducing the transcoeded information from the spoken source to other forms (often written forms such as dictation or note-taking), identifying needed clarifications, integrating information from the text and other sources, and providing appropriate feedback to the speaker.

Buck (2001: 51) states that despite the fact that there is no empirical support for the theories that have described listening in terms of 'taxonomies sub-skills that underlie the process', such lists provide a good account of what is important in LC. Buck (ibid: 52) reports some of the taxonomies given by scholars in the field. For example, the two-stage view of LC skills suggested that LC comprises of two stages: the extraction of the basic information and the utilization of the information for the communicative purpose. Carroll (1972) describes LC as the two stage process of 'comprehension of linguistic information and application of the information to the wider communicative context'. Rivers (1966) gives L2 listening two levels of activity: the recognition level in which the words and phrases are identified and the selection level in which listener draws out the gist of what is said.

Similarly, Clark and Clark (1977) give a construction and utilisation process. Also, Oakeshott-Taylor (1977) provides micro-comprehension which involves 'the perception of a short selection of a text' and macro-comprehension which involves 'the understanding of a text in its totality'. (For more sub-skills, see 54-59, specifically Richards' (1983) list of academic skills on 57). Buck (ibid: 59) concludes that both theoretical and research based taxonomies of sub-skills show that listening is a 'multi-faceted process, with a large number of sub-components'.

2.2.4.1.1 A Categorization of Listening Comprehension Sub-Skills

Despite the systematic way in which the above categorizations of sub-skills are worked out, they are not classified in detail, nor is there a full explication of what each sub-skill involves. There are other lists of listening skills and sub-skills in the literature, though most of them are not grouped as those in Munby (1978) or Rost (1990). A survey has been done of these in order to propose a comprehensive categorization of LC sub-skills. The principle behind the proposed categorization depends on the fact that LC shares many skills with RC, as discussed above. Thus, this classification of LC skills is based on categorizations of reading skills proposed by Gray (1960), Ferguson (1973), and Al-Jubouri (1976) in which reading skills (sub-skills) are categorized in terms of levels that are hierarchically ordered from basic to more complicated. Gray (1960) and Al-Jubouri (1976) specify three levels. Al-Jubouri's (ibid.) model, for instance, gives the following skills:

- Literal identification, which involves getting the direct meaning of a word, phrase, or sentence as the lowest level in the hierarchy.
- Interpretation, which involves drawing inferences from the context of the text, following its structure, making generalizations and comparisons, reasoning motives, discovering relationships, and predicting outcomes.
- Critical evaluation, which involves passing personal judgements on the quality of the information in the text, recognizing the writer's attitude and tone and techniques.

Ferguson's (1973) model, suggests a fourth level; namely, creative responses, which goes beyond the implications derived from the material to providing creative judgments and responses. The following levels are our classification of LC sub-skills adapted from Gray's (1960), Ferguson's (1973), and Al-Jubouri's (1976) levels of RC sub-skills.

1. The Literal Level: This involves three main types of skills:
    - Phonological Skills: These include two sub-skills: control of the phonological system to discriminate the words that sound similar, or words and phrases that differ in one phoneme (Morley, 1976: ix; Finocchiaro and Sako, 1983: 104; and Sullivan and Zhong, 1989: 37), and knowledge of the different intonation patterns and uses of word and sentence stress, pitch, etc. (Yagang's, 1993: 16 report of Willis (1981); and Goh, 1997: 366).
    - Syntactic Skills: These include: recognition of basic grammatical structures and sentence types (by identifying the clues to question forms, negation, coordination, or subordination) (Foley, 1984, 1985: iii; Sullivan and Zhong, 1989: 34; Howe, 1995: 98; and Irvine-Niakaris, 1997: 17), and focusing on whole or parts of sentences and attending to grammatical relationships (Morley, 1976: ix-x; and Baltaglia and Fisher, 1982: xi).
    - Lexical Skills: These skills involve getting the direct meaning of words, phrases, and sentences, which requires concentrating on specific words and making appropriate choices to what they mean by depending on context (Rivers, 1971: 131; Baltaglia and Fisher, 1982: xii; Finocchiaro and Sako, 1983: 104; Evans, 1984: 49; Foley, 1984: iii; O'Dell, 1987: 156; McDowell and Hart, 1988: 4; Sullivan and Zhong, 1989: 37; Boyle, 1993: 37; Howe, 1995: 98; Goh, 1997: 366; and Irvine-Niakaris, 1997: 17).
2. The Inferential Level: This level includes the following two skills:
    - Inferential Skills: These involve all the types of inferences that the listener makes to understand the message. It includes the following two sub-skills: inferring the speaker's attitudes, intentions, implications, motivations, and purposes, and making expectations and predictions about what he will say next (Fessenden et al., 1954: 72-73; Rivers, 1971: 131; Wang (1971) as reported in Paulston and Bruder, 1976: 128; Willis (1981) as reported in Yagang, 1993: 16; Baltaglia and Fisher, 1982: xii; Dunkel and Pialorsi, 1982: viii; Evans, 1984: 49; Foley, 1984, 1985: iii; McDowell and Hart, 1988: 4; and Hubbard and Sweetman, 1993: 40), and inferring spatial, temporal, and other logical

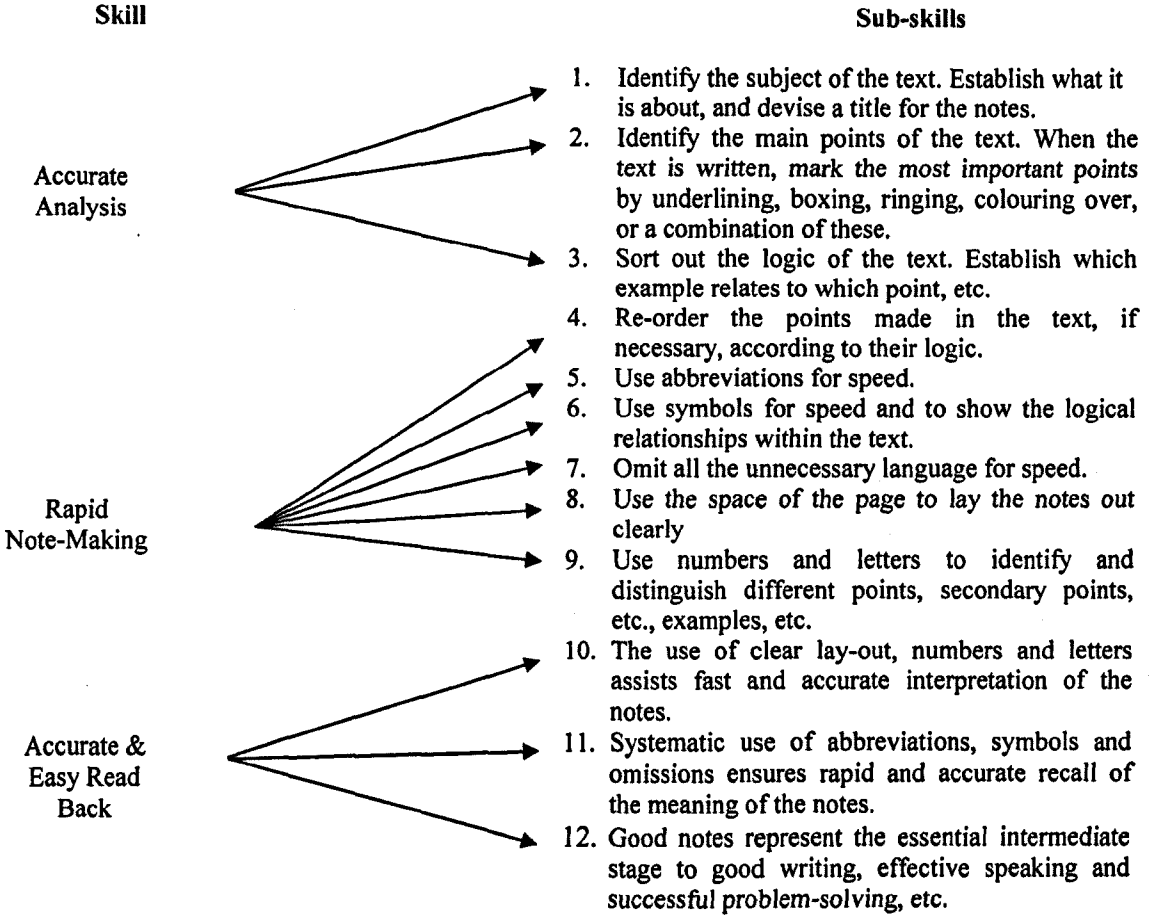
relationships, as well as social and cultural settings (Sullivan and Zhong, 1989: 41-43; and Hubbard and Sweetman, 1993: 41).

- Textual Skills: These involve grasping the development of the text, the recognition of main ideas, details, cause and effect relationships, which require: connecting between the parts of the text (Irvine-Niakaris, 1997: 17), recognizing cohesive devices (Willis (1981) reported in Yagang, 1993: 16), handling variation of style, tone, and forms of speech according to assessments of the situation, purpose, and topic (Howe, 1995: 95), concentrating on details, depending on the purpose of listening (Foley, 1984, 1985: iii; McDowell and Hart, 1988: 4; Sullivan and Zhong, 1989: 4; Yagang, 1993: 16; Howe, 1995: 96; and Irvine-Niakaris, 1997: 17), comprehending the gist of what is said (Rivers 1971: 132; O'Dell, 1987: 156; Sullivan and Zhong, 1989: 34; and Irvine-Niakaris, 1997: 17), and organizing and sequencing ideas (Howe, 1995: 94).

3. The Critical Level: This level includes the following two sub-skills: making appropriate judgments about the message, the speaker's personality, topic, etc. (Fessenden et al., 1954: 72-73; Baltaglia and Fisher, 1982: xii; Dunkel and Pialorsi, 1982: x; Sullivan and Zhong, 1989: 34; Hubbard and Sweetman, 1993: 40; and Howe, 1995: 94), and judging how the purpose of the interaction is achieved (Fessenden et al., 1954: 72-73; Rivers, 1971: 132; and Hubbard and Sweetman, 1993: 40).
4. The Creative level: This includes handling verbal and non-verbal strategies and giving appropriate responses (Howe, 1995: 94; and Irvine-Niakaris, 1997: 17).

2.2.4.2 Note Taking Sub-Skills

Most of the study skills books that provide advice on how to develop NT do not outline the sub-skills of NT in an explicit way which has surprisingly been the concern of only a few researchers. For example, Adkins and McKean (1983: 8-10) give three activities (or skills) to specify what a note taker does in order to takes notes from both lectures and books. These activities are: accurate analysis, rapid note writing, and accurate and easy read-back. The following is their list of these skills and their sub-skills:



Heaton (1975: 20) concentrates on NT in lectures arguing that it involves complex sub-skills; in order to take effective notes, one must be familiar with the linguistic, conceptual and rhetorical features in the material. Thus, the student must comprehend what is said, select the main points said in the argument, and follow the way the points are developed all of which constitute a difficult challenge for the foreign learner in particular. In addition, Suritsky and Hughes (1991), Williams and Eggert (2002: 174-175) report, suggest that NT in lectures involves four skills: 'listening, cognitive processing, recording lecture content in written form, and reviewing noted information'; this reiterates Kennedy and Bolitho's (1984) stages of NT, discussed in 2.2.2 above. The first two skills may occur concurrently, and the third follows in a matter of seconds. Cognitive processing involves two stages: understanding the lecture points and ideas and connecting what is understood to the note taker's existing knowledge, for the ideas that are not connected to the existing knowledge

are likely to be less useful. Williams and Eggert (ibid: 175) add that the first challenge of NT is 'to achieve a balance between listening, processing, and notetaking'; to achieve this balance, efficiency in NT is needed.

Since comprehension is the initial stage of NT, as discussed in 2.2.2 above, combining NT skills and sub-skills with the suggested hierarchy of LC sub-skills in 2.2.4.1.1 above can clarify the interrelationship between the two skills and explain the complexity of NT in lectures. The following table, Table 2.1, is a suggested taxonomy of NT skills and sub-skills integrated with LC skills. Most of the suggested skills specified in this table are specific to both listening and NT, while others are specific to NT alone. These skills are set in terms of four major or macro skills with related sub-skills within each category.

Table (2.1)
Taxonomy of the Skills and Sub-skills Involved in the Process of Note Taking from Lectures

Skills in NORMAL PRINT are common to both LISTENING and NOTE TAKING

Skills in ITALICS print are specific to NOTE TAKING

LITERAL SKILLS	INFERENTIAL SKILLS	CRITICAL SKILLS	CREATIVE SKILLS
• **PHONOLOGICAL SKILLS:** Using knowledge of the phonological system, intonation, stress, etc. to discriminate between the sounds and make phonetic decisions to select what to listen to from the flow of speech. • **SYNTACTIC SKILLS:** Using knowledge of the grammatical structures and sentence types to perform parsing, focusing on whole or parts of sentences, and recognizing specific structures in particular settings. • **LEXICAL SKILLS:** Getting the direct meaning of words, phrases, and sentences which requites control of word meaning(s), inferring meaning of words from context, and knowledge of word groupings.	• **TEXTUAL SKILLS:** Grasping the development of the text which requires making connections between parts of the text, recognizing discourse markers and cohesive devices, identifying the exponents serving a linguistic function and handling different styles, tones and figurative language. Identifying and recognizing main ideas, details, sequences, cause and effect relationships which requires concentrating on specific information, making up the gist of what is said, identifying relevant points and rejecting irrelevant points. • **LOGICAL SKILLS:** Inferring information about speaker's attitude, intentions, motivation, thought, and inferring spatial, temporal and other logical relationships.	**JUDGEMENT SKILLS:** Making appropriate judgments about the message, making assumptions, drawing conclusions, and judging how the purpose of the interaction is achieved.	•**RESPONSE SKILLS:** Handling verbal and non-verbal communicative strategies and identifying hesitations, prop words and making appropriate responses. • *OULINING SKILLS: Deciding on the layout or pattern most suitable to record the data in a logical order and readable fashion.* • *WRITING SKILLS: Writing quickly in contracted form, using abbreviations and symbols, the data considered important, e.g. examples, comparisons, etc., maintaining the relationship between the main ideas and supporting details.* • *REVIEWING SKILLS: Rewriting notes, adding more information collected while writing or found in others' notes, books or further discussions.*

2.2.5 Factors Affecting Note Taking While Listening

Since LC is the initial step to NT in lectures, the factors that affect the two skills have much in common. The following are the factors affecting NT in lectures integrated with those affecting LC; some factors relate to the lecturers, others to the students.

2.2.5.1 The Lecturer

Lewis and Reinders (2003: 72-75) state that students report different problems when listening to lectures. Students find it difficult to deal with new accents, understand jokes, get used to different teaching methods, and catch up with the lecturers' speed of delivering the material. The discussion below sheds light on these lecturer inflicted problems in detail:

2.2.5.1.1 Teaching Styles

In certain instances the lecturer may be the cause of the student's failure to understand what is said and take notes. Lectures have been the subject of criticism by many researchers since the 1920s. Maddox (1963: 99), Howe (1986: 69), Rowntree (1988: 112) and Marshall and Rowland (1998: 150) argue that lectures are widely known to be a 'one-way' communication process in which the lecturers do the speaking and students merely listen and take notes. Because lecturing styles differ from one lecturer to another, students can end up learning more from one lecturer rather than another. Marshall and Rowland (1998: 159) assert that 'Lecturing is a talent which few people possess naturally'.

The reason for having poor teaching styles at the university level can be due to, Heaton (1975: 39) states, the fact that many university lecturers have not received professional training in lecturing. Some lecturers consider teaching an interruption of their research and openly claim to be 'the world's worst teachers' (see also Rowntree, 1988: 114). Nonetheless, there are others who teach with enthusiasm and have in mind the difficulties that face newcomers. Wallace (1980: 32) stresses that some lecturers can make even the most interesting subjects seem dull. Also, the lecturers' attitudes towards the material can make the recognition of salient points a challenge for students (Heaton, 1975: 19).

The lecturers' personality, Marshall and Rowland (1993: 129; 1998: 151-152) state, may affect the effectiveness of their lectures. The more sensitive lecturers are to students'

needs and the more responsive they are to their mood and attention shifts, the more enjoyable and successful their lectures become. In any listening situation, Dean and Bryson (1961: 462) argue, the listener may be swayed in favour of a speaker's personality or pleasing voice, and this affects the listener's way of listening and responding. The speaker's gender which affects his/her voice pitch as well as his/her accent may also affect listening. Norman (1976: 26) reports Treisman (1964) stating that voice pitch has significant effects on listening especially in the types of tasks that require selective listening. The type of accent that the listener is used to, Yagang (1993: 17) and Goh (1997: 363) assert, may also have a dramatic effect on listening. For example, the listener may be used to a female's voice speaking in a British accent; hence, if he hears an American accent he might not completely understand what is said. Buck (2001: 34-35) reports Kennedy (1978) stating that L2 listeners are less familiar with the range of common accents of a language than L1 listeners; therefore, L2 listeners find it more difficult to understand a new accent. It takes the L2 listeners longer to adjust to new accents than L1 listeners.

As far as NT is concerned, Maddox (1963: 103-104) argues, lecturers should use various signals of presentation to facilitate comprehension. Lecturers can indicate major headings either by pausing, giving introductory phrases, slowing down their speech rate, repeating certain points, and using other forms of emphasis. Bad lecturers, Barrass (1984: 44-45) states, copy what they think is important in the textbook on the board. On the other hand, good lecturers make the purpose of each lecture clear from the introductory remarks they give about them. Thus, lecturers help students to listen, think and anticipate. In this way, students can easily relate what is being said to what they already know, and select points that make their notes 'a digest' rather than a copy of the textbook. The lecturers' ability to physically communicate with students can dramatically affect the way students understand lectures. Some lecturers are sensitive to their students' needs and reactions; they use all the resources available to them such as acting lively, maintaining eye contact with the students, using gestures and variation in voice tone to help their students understand what they are saying (Chambers and Northedge, 1997: 83). On the other hand, other lecturers simply sit at their desks and read out their notes speaking in a monotonous fashion (see also Dean and Bryson, 1961: 10; and Turner, 2002: 24). As far as communication between native and non-native speakers is concerned, a great deal of adjustments is needed; therefore, in

EFL classrooms, lecturers need to make adjustments to what they say. Murphey (1990: 2) reports Long (1977; 1981; 1983) stating that such adjustments may be: physical, e.g. observing distance, posture, etc., intellectual, i.e. to fit the partners' reasoning skills, situational, e.g. speaking louder, slower, etc., and/or adjusting to the partners' belief system and past history. Therefore, lecturers must be fully aware of their responsibilities by considering the quantity and quality of what they teach (see also McIlroy, 2003: 36).

2.2.5.1.2 Disorganized Presentations

In any learning situation, the material is the central factor, for it is the subject of learning. In second language acquisition, one of the important aspects related to the learning of the material, is the availability of comprehensible input (Krashen, 1982: 128; 1985: 2; and Ellis, 1985: 157). In many occasions, note takers in lectures are forced to deal with disorganized information. In such instances, lectures are delivered without guidelines or plans, which greatly affects the listeners' understanding of the material and eventually the outcome of NT. This might be why students say that some lecturers are good while others are bad which leaves us to wonder whether 'perfect lectures' or 'perfect lecturers' exist. Carman and Adams (1972: 35) maintain that 'No instructor is a perfect lecturer. Even the best are disorganized at times; the worst are very disorganized indeed'! They (ibid: 15) argue that listening to disorganized information is difficult, for 'organization is the key to effective listening'. NT helps listeners find 'the underlying structure of what is heard, discovering the skeleton of ideas on which the instructor has built his lecture'. The listeners must therefore be trained to listen to the structure of the material and separate what is redundant from what is important (Byrne, 1986: 18; and Burton, 1996: 44).

Maddox (1963: 103), Wallace (1980: 48) and Howe (1986: 86-87) state that thoughtful lecturers try to follow the general line of organizing a communication: they tell students what they are going to say, say it with the relevant explanation, and then finish off by repeating the most important points (see also Wright and Wallwork, 1962: 70). Maddox (1963: 100) states that good lecturers can 'organize and integrate the various aspects of a subject more effectively than a book, and give a treatment more adapted to the needs of a particular audience'. Such lecturers prepare about three pages of structured notes for a one-hour lecture; these notes would have headings and sub-headings which students discover

and reproduce in their own notes (ibid: 103). However, some lecturers neither follow a clear structure nor help students discover the layout of the ideas in their lectures. Howe (1986: 86-87) argues that the structure of lectures can be unclear for a number of reasons. Lecturers may state what they plan to do at an earlier point than their lectures and may therefore assume that students remember them. Also, some lecturers end up rushing the last part of their lectures even though it is vital. In addition, Heaton (1975: 96-97) maintains that sometimes lecturers discuss a certain point, immediately start with another one, and then go back to amplify the first one. In such cases, students should impose their own structure on their notes by using arrows or lines to express the relationships between the details.

2.2.5.1.3 Speed of Delivery

The speed by which the material is presented in lectures is an important variable that greatly affects comprehension and NT. In lectures, students may be used to a certain speed and usually ask the lecturers to speak at a slow speed; on the other hand, lecturers often claim that they are speaking at a normal speed when asked to slow down. Salimbene (1985: 82) argues that what makes this factor difficult for students is that they cannot listen to the information again, and in formal lectures, students cannot stop the lecturers to ask for clarification (see also Wallace, 1980: 71).

Therefore, NT in lectures is a big challenge since students must listen, think, analyse and write all at the same time and very quickly. Peters (1972: 276) states that:

> taking notes during a very rapid presentation may interfere with listening, while at slower speed, it may enhance listening by increasing the concentration of the student. This would suggest that there would be a crossover rate at which note taking would make no difference in performance.

Peters (ibid: 276-277) states that although most studies did not report rapid presentation rates, this crossover might be expected to be 'within the range of the normal rate of speech; that is, between 125-200 words per minute'. Peters (ibid: 277) refers to (Johnson, 1966; Nichols and Stevens, 1967; Oliver, Felko, and Holtzman, 1966; and Taylor, 1964) for more on this. Also, others such as (Fairbanks, Guttman, and Miron, 1957; Goldstein, 1940; Jester, 1966; Nelson, 1948; Orr, Friedman, and Graae, 1970) reported that presentation rate without NT affects comprehension only at extremely high rates of 300 words per minute or more.

This would suggest that 'decrements in performance occurring with rates in or near the normal range must be attributed to some other form of interference'.

In order for students to be able to take notes in lectures, Howe (1986: 72) contends, they must 'pave to go at the lecturer's pace'. Some lecturers are conscious of their students' problems and help them in whatever form they can, but many others are not. She (ibid: 82) asserts that NT during lectures can be made a very complex task if 'the lecturer does not adapt his pace and phraseology' to make it easy for the students to take notes. Howe (ibid: 74) argues that while some lecturers speak slowly to make sure students follow what they say, others go faster either assuming that students have prepared for the lectures, or to share their enthusiasm for the subject with them, or simply to cover as much of the syllabus as possible. Maddox (1963: 103-104) argues that some lecturers use dictation speed to dictate main headings and sub-headings, definitions and summary sentences; thus, all their students would end up with the same notes. Such a method is only suitable for students in their early stages of learning (see also Paulston and Bruder, 1976: 128; and Pinker, 1994: 161-162).

2.2.5.2 The Student

2.2.5.2.1 Study Habits and Note Taking Problems

This factor involves all the conscious and subconscious habits that students bring with them to lectures. It is not surprising to hear students say they do not know how to study, for most are neither instructed in this area nor do they experiment and improve the strategies they use. As far as NT in lectures is concerned, many students are unaware of the importance of preparing for lectures and reviewing lecture notes nor do they know how to listen and select information in lectures. Developing study habits is therefore taken for granted by students in spite of the importance of good study strategies to improve listening and NT and consequently learning. Adkins and McKean (1983: 8) emphasize that effective notes are the result of effective study methods (see also Palmer and Pope, 1984: 75).

Tabberer (1987: 101-103) maintains that the difficulties students face in NT are well known; the big gap between the way they take notes and the suggestions of study skills courses can explain some of these. When Tabberer asked teachers to identify difficulties or shortcomings in students' notes; they were able to give a list of such difficulties based on their observations; examples of these problems are:

> absence of structure and shape, highlight, abbreviation, space, diagrams, arrows or other means to indicate flow, colour and legibility. Frequently linear in form, with too much taken down verbatim, such notes were sometimes haphazard or chaotic to the extent of being very difficult to re-use. There was general consensus amongst teachers that lower attainers had special difficulty with note-making, which combines the three tasks of listening, watching and writing.

The most common complaint by teachers, Tabberer (ibid.) continues, is that students tend to copy 'huge chunks' of the material. Some students ask for a slower pace in order to copy as much as possible and as quickly as they could. On the other hand, there are other students who are identified as 'highly skilled'; these are able to note down key points and therefore produce usable notes. The former students, Tabberer (ibid: 103) states, have difficulty in the 'selection and rejection' step of the NT process, for they would rather have too much information than risk losing or omitting important items. The reason why students tend to copy rather than select can be traced back to school education in general where students are given 'pre-selected information' which does not require them much selection. Students, therefore, failing to identify the essential information, believe that everything they listen to in lectures is important and hence must be included in notes. The verbatim record of the information gives students a secure record to study and try to understand subsequently. Although they are happy with such an activity, teachers find it time-consuming and of relatively little usefulness.

From observation of students and through listening to their ideas about NT, Turner (2002: 55-56) found that students:

1. feel more or less secure about the information they write down.
2. face a conflict of focus; they either listen or write.
3. feel more or less confident about what they can remember.
4. feel that the method they use is not adequate but cannot be confident in changing it.
5. do not think about it seriously.

From these points, Turner (ibid: 56) argues,

> it is clear that making notes is tied with psychological issues of fear, uncertainty and lack of confidence. These larger psychological issues are of course not only felt in

> regard to note-taking, but we can see note-taking as a microcosm of how these factors are involved in – some would argue get in the way of – the learning process itself.

The anxiety about trying to get things right, Turner (ibid.) states, leads students to take down the exact wording of what is said, giving them a sense of security that they would be able to find the information they need later. Unfortunately, this practice clearly involves students in a relatively simple practice that does not require them to process or analyse the texts they are dealing with; it does not require them to engage their brains with the subject matter of the text or follow the arguments in the text. Burns and Sinfield (2003: 62) agree that the reason why students copy rather than select is fear. They found in their research that students' notes tend to be short when they are confident about what they are saying, but the notes become longer when they start 'to move onto unfamiliar territory'.

Leathers (1982: 35-37) adds revising, learning and remembering notes to the common problems that are frequently expressed by students. Students' complaints regarding the amount of information that should be learnt is a justifiable complaint keeping in mind that the length of a learning period can affect learning and recall. The ability to recall during a long period of continuous learning may decline but improve in the end of the learning period.

Lewis and Reinders (2003: 76) give other problems faced by students:

1. They cannot write down everything they want.
2. Their handwriting is difficult for them to read later because they take notes quickly.
3. They never find enough time to go over them until just before the test.

To overcome NT problems, Maddox (1963: 105) states, students need to become aware of their specific problem areas in NT. This awareness helps students become efficient note takers at a great speed since 'Note-taking is a skill which will improve with practice', and practice involves solving problems. Information about one's NT problems can be learnt through cooperation between a few students attending the same course. This cooperation would need to involve an examination and comparison of the notes taken on a particular lecture to study inaccuracies and omissions; knowing these would help overcome problems and improve the NT process and outcome. Hence, this is another advantage to add to comparison as discussed in 2.2.2.3 above. Drew and Bingham (2001: 39) agree arguing that

when comparing notes, students should consider the ways in which the notes are different, how the notes are organized, whether they understand each other's notes, why some things were included and not others, and have the notes been rewritten or improved (see also Fairbairn and Winch, 1996: 29-30). In addition to comparing notes, Marshall and Rowland (1998: 158-159; 1993: 136) suggest listening to a tape recoded version of the lecture or reading a hard copy of the lecture, preparing more thoroughly for lectures, reading more on the topic, and asking lecturers for help when needed. McIlroy (2003: 29-30) states that students should try more than one NT strategy over the course of their study since the more they practice NT in lectures the more their skills develop until they find the system that suits them best. Students must also be ready to adjust their NT styles according to their lecturers' styles. Chambers and Northedge (1997: 15) state that students can develop their study skills by trying new methods and reflecting on how well the ones they use work.

2.2.5.2.2 Attention and Motivation

A lot of the problems that students face while NT from lectures can be traced to the very nature of listening as a complex skill. Marshall and Rowland (1993: 131) argue that loss of concentration is the result of the difference between the speed by which listeners think as compared with the lecturers' speech rate; since thoughts can move faster than speech, one's attention can easily be lost during lectures. One can be distracted by his own thoughts or with what he wishes to say or write. Students may find it difficult to follow lecturers either because what they say is unappealing or irrelevant to them or because of distractions from colleagues. Such examples of problems are reasons why students 'tune out' of lectures.

Failure to concentrate is a natural human condition that is likely to happen when students are tired, uncomfortable or bored (Howe, 1986: 75). Palmer and Pope (1984: 85) explain why concentration is an important factor for students' performance in lectures arguing that 'regardless of intelligence-level or the activity undertaken, the brain performs best for about twenty to thirty-five minutes at a time'. Rowntree (1988: 117) states that few listeners can listen to lectures for 'more than twenty or thirty minutes' without their attention beginning to lapse. Marshall and Rowland (1998: 157; 1993: 135) give the range of 'twenty to twenty-five minutes' as the maximum concentration span in lectures; they add that

concentration is generally better at the beginnings and ends of lectures. It is clear from these figures that this twenty to twenty-five or thirty-five minutes are crucial for the listener who has the aim of taking notes in mind.

As for motivation, this factor overlaps with attention in lectures. When students lose attention, their motivation to try to make sense of what is said fades and vice versa; students who have no motivation to listen to a particular lecturer or topic pay little or no attention. Heaton (1975: 39) states that 90% of lectures fail to inspire students or stimulate an interest in them, which is a striking percentage taking into account the importance of university lectures. Motivation is affected by a wide variety of factors ranging from the simplest, such as pitch, to the more complicated, such as the ideas communicated and the learning atmosphere (see Heaton, ibid: 41; and Howe, 1986: 75 for ways to overcome the students' lack of motivation). Choosing a good place to sit in lecture halls can reveal students' motives and affect their attention level. Maddox (1963: 100-101) argues that keen students sit in the middle and near the front of lecture halls where acoustics are good; this ensures that they can hear and see everything easily and with minimum distractions, eventually enhancing their comprehension of the lectures. In contrast, students who sit in the back of lecture halls 'dissociate themselves from the proceedings by sitting as far back as possible'. McIlroy (2003: 29-30) agrees stressing the importance of sitting as close as possible to lecturers for students with hearing or sight problems (see also Barrass, 1984: 44). Distractions such as outside noise, movements from the audience, uncomfortable atmosphere, etc., may make the listener hear only pieces of the information; thus, he may miss whole parts of the message which affects overall comprehension (Goh, 1997: 363).

Widdowson (1978: 67) confirms the association between interest and attention arguing that if the listener is interested in the ideas, the material, and the teacher, he will actively try to make sense out of the lesson (see also Rivers and Temperley, 1978: 46; Mudd and Sillars, 1979: 29; Krashen, 1982: 66; Evans, 1984: 49; and Lynch, 1998: 9). Henning (1966: 34-35) agrees arguing that unwillingness to listen may be caused by the listener's feelings, attitudes or established beliefs about the speaker or the topic, and his wishes and desires to listen to particular things depending on the purpose he has for listening (see also Fessenden et al., 1954: 7). Successful listening is therefore governed by the purpose of listening which affects

the listener's interest and, in turn, his attention to what is said and subsequesntly NT (see also Norman, 1976: 9; and Harrison, 1994: 58).

As far as NT is concerned, NT can improve attention, as discussed in 2.2.1.1 above. Since concentration is generally better at the beginnings and ends of lectures, as Marshall and Rowland (1998: 157-158; 1993: 135-136) state, it is important to try to overcome concentration difficulties in long lectures. In order to do that, they suggest minimizing distractions in the surroundings, replaying problematic parts of a taped version of the lectures if available or asking for the lectures transcripts, relating the information to what is already known and anticipating what would be said next, making a list of questions to ask the lecturers, trying to jot down at least an outline of the lectures when the content of the lectures are irrelevant or uninteresting, leaving enough space in the notes when the lectures are disorganized and lecture outlines and useful aids are not provided, and getting used to the lecturers' styles (see also Howe, 1986: 75). Langan (1989: 247) argues that the experience of taking notes in lectures cannot be substituted by depending on the book or another student's notes; this is why faithful attendance and attention are important for taking effective class notes.

2.3 Research on Note Taking in Lectures

Howe and Godfrey (1978: 7-9) argue that two developments have made NT investigations necessary. First, despite the development of alternative methods of reproducing materials, such as the availability of books and modern copying devises, NT is still in some occasions the most convenient form of recording some types of information. Second, the mental processes or activities involved in NT encourage effective attention to the knowledge being obtained and involve the learner in 'coding or abstracting procedures' which increase the chance of learning and retaining information.

Investigations in the field of NT in lectures have concentrated on different aspects of this skill. For example, a number of studies have been carried out to investigate the effect of NT on recall and learning, and contradictory findings were reached. Other research measures the accuracy of the notes taken by students and the variations in NT techniques between students. Since these aspects are some of the main concerns in this study, we will have a look at some of the important studies in detail.

2.3.1 Effectiveness of Notes

A number of studies have investigated the effectiveness of students' notes in recording information correctly. Howe and Godfrey (1978: 29-30) state that the best-known study in this respect was carried out by Hartley and Cameron (1967) who assess the amount of information taken down by students in lectures as compared with the amount of information actually communicated in the lectures. In their study, Hartley and Cameron (ibid: 31-32) explain, they used a fifty-minute factual lecture containing unfamiliar information and visual aids. The students, who were second-year psychology students, were unaware of the experiment, while the lecturer was aware of it. It was a customary procedure to record the lecture; thus, a transcript was made from the recording which was divided into 'informational units', such as the following:

> So this is his thesis, his principle, if you like. / In other words learning occurs by learning to avoid errors / or error factors. / And this leads us directly to the title of his main paper, which was called "Learning sets and Error factor theory"...

Then, the lecture was divided into sections of ten minutes each; the number of information units found in each was recorded. After the lecture, the notes students took during the lecture were collected and marked. Each unit of information that appeared in the notes in whatever form, e.g. a word, or an abbreviated reference, was given one mark. One of the findings indicated a difference between the performance of men and women. The most unexpected finding was that the students wrote very little of the information available in the lecture; nonetheless, if one considers the objectives of the students, the scarcity of the information in their notes would not appear as surprising as it may seem. Since NT, Hartley and Cameron (ibid: 32-34) add, is a complex task that requires students not only to receive the information of the lecture but also simultaneously analyse and record it, only a percentage of what is in the lecture should be expected in students' notes. About 'one-third' of what is communicated to students is a reasonable amount or even 'a generous estimate' to expect to find in their notes. This estimate imposes restrictions upon what the students will actually write down. In order to take this restriction into consideration in this investigation, the lecturer was asked to impose a restriction on the transcript of the lecture. Then based on this limitation, he was asked to estimate what he wanted the students to note down. This version of the transcript was then compared with the quality of the material noted by the students. In

order to perform this comparison, the lecturer was asked to produce 'an "ideal" set of notes' which was analysed in terms of informational units and compared with the students' notes.

Hartley and Cameron (ibid: 34-35) argue that the results show that the quality of the notes taken down, in terms of the importance of the information units they contain, is of more importance than their quantity. It is interesting to see the agreement between the students' notes, on one hand, and between the students and the lecturer's notes, on the other. The students' performance declined in the last ten minutes of the lecture; this can be the result of the lecture content, which was generally a summary of the main points, rather than students' fatigue. Also, the differences between the amount of notes written in the different time intervals of the lecture depend on the 'context of the lecture and the students' attitudes to note-taking'. Hartley and Cameron also found that all but one student paid more attention to the verbal description of the five slides used rather than drawing them. The agreement between students' notes occurred when references, definitions, and names were written on the blackboard, for at least three-quarters of the students noted these down. It was surprising that most students' notes were similar in both the content found in them and the approach used to make them. In a questionnaire after the lecture, 18 out of the 22 students involved reported their NT strategies as follows:

> Write down the main points and subsequent sub-headings.
> ..take down as much as possible. ..try to avoid repetition.
> ..take down as much as possible relevant to each heading.
> ..take notes continuously to concentrate attention on the lecture and avoid day-dreaming.

Hartley and Cameron (ibid: 36) state that the results together with the above comment show that students did not consider the lecture as a source of facts alone; rather, they appeared more interested in 'providing a framework of ideas and theory in which to fit subsequent work'. Since students were not interested in noting detailed factual information from the lecture, subsequent reading is assumed to be their source of these. In a questionnaire, all the students involved in this study expressed their intention to do follow-up work after the lecture. However, just before an examination two weeks later, 19 of these 22 students had neither read their notes, nor had they done the subsequent reading they had intended. Hartley and Cameron conclude that the figures reported in their investigation are only specific to the lecture and students involved in it; hence, it is dangerous to make

predictions based on this study alone. However, the results suggest the need to study the factors which could improve the efficiency of teaching methods as a basis for more agreement between students' and lecturers' notes.

Ngarari (1990: 18) stresses the importance of Hartley and Cameron's (1967) findings regarding the amount of information the students wrote, i.e. 'one-third' of the lecture information. She (ibid: 19) reports Crawford's (1925) finding in a similar study that 'students do not take very complete notes, with the average student's notes containing only 53% of the "relevant" lecture material'. Ngarari argues that what Crawford calls "relevant" is questionable since what the students might consider relevant material might not be in agreement with what the lecturer finds relevant. However, she concludes that despite this criticism, even brief notes show that learning took place. In addition, due to the complexity of the nature of the NT, in that the students listen and simultaneously analyse and record what is said, 'it would be unwise to ask the students to get down on paper more than a certain percentage of what is said'.

In a somewhat similar study to Hartley and Cameron's, Howe and Godfrey (1978: 32) report Howe's (1970) study in which subjects took notes while listening to a short prose passage; the students 'recorded about half of what were judged by the experimenter to be meaningful units of information'. A test a week later showed that the subjects recalled about a third of what appeared in their notes. Howe was also able to obtain a measure of the 'efficiency' (or accuracy) of an individual's notes. Howe and Godfrey (ibid: 53) state that:

> The measure took the form of the ratio obtained by dividing the number of meaningful items correctly recorded in the person's notes (the measure of accuracy) by the actual number of words in the notes. The assumption underlying the use of this as an approximate indication of the degree of encoding was that the greater the amount of encoding, the better the student would be able to provide a version of the material "in his own words", departing from the original form, and containing a smaller number of words. In short, the ratio obtained was an indication of the student's ability to reproduce the content with a high degree of accuracy but a small number of words. The next step was to discover whether this index of the "goodness" or "efficiency" of notes was related in any way to learning, as measured by performance on a free-recall test. In fact, there was a statistically significant positive correlation, r = +.53, so it

> does appear that what we termed an "efficient" note-taking strategy is indeed an effective one.

Howe's measure, Howe and Godfrey (ibid: 63) argue, would appear to provide a rough indication of the amount of processing or encoding that took place in NT. The fact that the scores were significantly correlated with scores on a subsequent test measuring learning suggests that the encoding that occurs in the course of NT may indeed be related to learning.

The question of whether any set of notes can be useful for revision and subsequent learning has been addressed by Hartley and Marshall (1974). Howe and Godfrey (1978: 54-55) and Ngarari (1990: 15-16) state that 50 students were involved in Hartley and Marshall's experiment, initially without being aware of that. They were given an introductory lecture of their psychology course and asked to hand in their notes after listening to the lecture; they were also asked to do a test consisting of sixteen questions that required recall of certain information and general comprehension of the lecture. The students were later given ten minutes to revise the lecture information from their notes; after that, the same original test was given again which was something the students didn't expect. Howe and Godfrey (1978: 55) state that both test attempts in addition to the notes the students took were collected. The notes were inspected and scored according to three criteria: (1) the number of words written, (2) the number of test items that were answerable with the help of the notes, and (3) the number of information units noted, as measured by Hartley and Cameron (1967). Hartley and Marshall selected two groups of students on each of these criteria. Ten students were selected as 'good' note-takers, and another ten as 'poor' note-takers. This selection was based on the number of items recorded by the students in relation to each criterion. It was found that the students who were selected as 'good' and 'poor' note-takers on criteria (1) and (3) were the same individuals. Then, the performance of the two tests for the two groups was compared. No significant difference was found between the two groups on criteria (1) and (2) on the first test, which was administered before the ten-minute revision period the students were allowed. However, a significant difference was found between the groups on the second test, which was administered after the ten-minute revision period; this difference was in favour of the 'good' note-takers group. The 'good' note-takers did significantly better in the post-revision test than their performance in the first test. It was concluded that '"good" notes are definitely useful for revision, but "poor" ones are not'. Finally, it is worth

noting that Hartley and Marshall's (1974) investigation of the information in students' notes also showed that 'in one lecture only eleven percent of the contents, on average, were recorded in students' notes' (Howe and Godfrey, ibid: 33).

Williams and Eggert (2002: 176-177) add that in addition to Hartley and Cameron's (1967) and Hartley and Marshall's (1974) investigations, studies by Baker and Lombardi (1985), Kiewra et al. (1987), and O'Donnell and Dansereau (1993), among others, found that 'college students fail to record many important lecture points'. The most typical range of recorded notes is around 30%-40% of the points in the lectures. Kiewra et al. (1987), for example, found that the percentage of the lecture ideas recoded differs according to the level of the specificity of these ideas; students recorded 91% of the main points in lectures, with decreasing amounts of the subordinate points, 60%, 30%, and 11%. Paying more attention to main points is an advantage in NT. Also, Kiewra and Fletcher (1984) found that note takers who paid more attention to main ideas did better on immediate and delayed tests than those who paid attention to minor details. Thus, to strike a balance between main and specific ideas, the note taker must 'weigh a specific in terms of its contribution to the main idea'.

In a similar investigation to that done by Hartley and Cameron (1967), discussed above, Maddox and Hoole (1975) measure the decrement in the performance of students in lectures by measuring the percentage of "ideal" notes they wrote down in an expository lecture. They (ibid: 17-18) argue that it is inevitable to find a decline in performance in a lecture by both lecturers and students; they report McLeish (1968) arguing that the performance of both lecturers and students tend to drop after about 40 minutes of the active beginning of the lecture. Evidence for this decline was based partly on Lloyd's (1968) estimate of "the 'receptivity' of students in the course of lectures" on subjective impressions. Maddox and Hoole argue that the decrement in lectures is used to discredit lectures and suggest modifications of lecture techniques. They (ibid.) state that it is argued that the extent of decline in a lecture depends on 'the difficulty of pace of the subject matter, on levels of student ability, and on the rapport between lecturer and audience'.

Maddox and Hoole (ibid: 19) state that the importance of Hartley and Cameron's (1967) study was also in discussing the general efficiency of the lecture by concluding that 'the differences noted in different time intervals depended more on the context of the lecture and the students' attitudes to note-taking, than on student fatigue'. Information in most

lectures is not produced at a constant rate; many lecturers spend the last ten minutes of their lectures summarizing what they have said. Lloyd and McLeish suggest that this decline has little to do with fatigue on the part of the lecturer; it is rather a result of a decision to cover little information. Lloyd (1968) points out that 'the amount of information transmitted and received is a joint function of both lecturer and audience'. Thus, when the lecturer gives an anecdote or summary in the last ten minutes of the lecture, students' notes for this period would be brief but adequate. Maddox and Hoole (ibid: 20) state that:

> Variation in the amount of information transmitted is a source of difficulty in measuring the efficiency of note-taking. There are two possible measures: (1) the absolute number of relevant information units noted down or (2) the proportion or percentage of the lecturer's important points that are noted down at each stage. If the first measure is used it may well appear that there is a decrement in student note-taking as the lecture proceeds. If the second measure is used there may well appear to be little or no decrement in student performance. Clearly the best course is to use both the absolute and the relative measure.

Maddox and Hoole (ibid: 20-22) state that their investigation is part of a study that replicates Hartley and Cameron's (1967) work in university lectures. 56 third-year Geography students were given a descriptive lecture and dictated headings and subheadings, given important points on the blackboard, and clear phrases that signaled important parts of the lecture. There was a high proportion of women in the class; there were 34 women and 22 men. The students were all unaware that they were taking part in a survey; the lecture was tape-recorded which was a customary procedure. The students were asked to hand in their lecture notes after the lecture which were photocopied and returned afterwards. When the notes were examined, the sex of the student and the row in which he sat were taken into consideration. A transcript of the lecture was made from the tape, and the lecturer provided a set of 'ideal' notes based on the transcript and the original lecture notes. The lecturer's notes were divided into 190 information units. These units were distributed over the 5 minute periods of the 50 minute lecture as follows: '8, 18, 17, 20, 27, 27, 20, 10, 25, 18'. It appeared that the lecturer had provided a fairly constant transmission of important information during most of these periods. The students' notes were scored for each

information unit, i.e. the 190 units of the ideal notes and the 515 units of the full transcript, as follows: '(I) correct (2) partially correct (3) omitted and (4) erroneous'.

Maddox and Hoole (ibid: 22-23) argue that their findings are close to Hartley and Cameron's. The agreement between the content and the ideal notes was about 50%; concerning the ideal notes, they state that:

> ... on average the class got down 99.7/190=52.5% of an ideal set of notes. The size of the standard deviation indicates a considerable range of scores-from 48 to 139 units. Thus it was perfectly possible for the more conscientious note-takers to get down some 75% of the lecturer's ideal version...The women students took fuller notes than the men: (P<.01) 70% of the women took more than the general average of note, as against only 32% of the men. The top four note takers were women, and the bottom four all men. This finding confirms the common idea that women write more copiously than men and exceed men in word fluency...The women wrote at greater length and in a more verbatim fashion, while the men wrote much less and tended to abbreviate the information units to one or two words.

Maddox and Hoole (ibid: 23) add that the division of the lecture into 5 minute periods was done in an arbitrary fashion. Ten divisions were used instead of the five used by Hartley and Cameron for they were thought to provide more exact information. They found that the average percentages of the ideal notes recorded by the students in the periods (except the first which was neglected) were: '53, 62, 50, 50, 52, 42, 63, 66, 45'. These figures show quite a steady level of NT which refutes the common belief that students need to rest in the middle of lectures, for they cannot sustain performance for 50 minutes. It was also found that few units were recorded in periods when the ideal notes were few. Maddox and Hoole (ibid: 26) state that Hartley and Cameron reported a similar decline during discussions.

Maddox and Hoole (ibid: 27) also noted that notes were only rarely taken in three contexts: when jokes were made, when questions were asked, and when visual aids were shown. This confirms what Hartley and Cameron noted about the seldom noting down of visual aids in contrast with the frequent copying from the blackboard. As for the accuracy of the notes made by the students, Maddox and Hoole (ibid.) state that only about 0.5 % of the notes were found to be erroneous. Students sitting in the four back rows made more errors than those in the front. One of the most frequent errors involved numbers, e.g. 4 million

written as 400 million. This finding suggests that the blackboard needs to be used to present numerals. Maddox and Hoole (ibid: 28) add that it was hard to judge the accuracy of shortened or abbreviated statements. Essential qualifiers were omitted in some cases, e.g. 'western coastal areas' became 'coastal areas'. Another case involved a student arguing that an important phrase was implied by the context and therefore not written down. Maddox and Hoole argue that the extent to which notes should be full cannot be generally agreed upon; nevertheless, findings of psychology suggest that forgetting details can occur through time; therefore, notes should be full. Skeleton notes could be made if the lecture is well organized, and these could be filled out later. Maddox and Hoole also noticed that only 100 of the 190 ideal units in the lecture were recorded, one was erroneously recorded, six were partially recorded and 83 were omitted. Omissions of important examples may be the result of delivering the material too quickly. They (ibid: 30) conclude that in lectures, students write down 'a partial and slightly erroneous account through an intermediary, the lecturer, who himself is not immune from error and oversimplification'. This suggests, as discussed in 2.2.5.1 -2.2.5.1.3 above, that NT is at the mercy of lecturers.

In a somewhat similar investigation to the above studies, Howe and Godfrey (1978: 71) examined three variables: the individual variations and differences found in students' notes, whether or not there is a relationship between such differences and what is recalled in a test on the lecture topic, and the whether there are any relationships between the words of the lecture and the notes taken by the students. The subjects of this study, Howe and Godfrey (ibid: 72) explain, represented two groups from two different courses: science and psychology students. They were neither told that a study was taking place nor were they instructed to take notes before the lecture in order to ensure they took notes as they normally do. The lectures were tape-recorded without the students being aware of this. The recordings were used to prepare a short-answer retention test, which was administered one week later. The students' notes were collected, Xeroxed and retuned to them. The study was explained to the students before the test and before the collection of their notes.

Howe and Godfrey (ibid: 73) state that the notes were marked by counting the number of words in them; every unit, such as the abbreviation 'e.g.', was counted as one word. There was a great difference between the groups in the number of words in their notes. The number of words in the notes of the psychology students 'ranged from 89 to 1167, the mean

number being 601, and the Standard Deviation was 224'; the mean average number of words in the notes of the science students was 555, the range was 'from 65 to 836, and the Standard Deviation was 177'. This information was examined in relation to the test scored in order to see whether there is a correlation between the number of words in the notes and the test scores. For the lecture delivered to the psychology students, a significant correlation of +.31, $p<.10$ was found. It was also found that students who spent time reading and copying their notes scored higher on the test than those who did not. On the other hand, the correlation between the notes and the test scores of the subjects who did not review their notes was +.1 which was not found statistically significant. As for the science students, the correlation found between the test scores and the number of words in the notes was -.283, which was not significant. It was found that the students who reviewed their notes did not perform better on the test than the subjects who did not review their notes. Howe and Godfrey (ibid: 74) state that the different NT strategies and styles were examined. Another analysis was made using a transcript for a short section of the lecture given to the psychology students. The number of words in this section was 320; this was compared with the notes and marked differences were found. For example, one of the subjects wrote 108 words in the section as compared with another subject who wrote only 5. Also, various alterations were observed in the language used; for example, one subject used the word 'sketches' for 'impressions'. This analysis did not provide any systematic findings.

Another examination was made of the number and variety of abbreviations used in the notes written by the psychology students. A positive correlation of +.7 was found between the number of abbreviations used and the number of words in the subjects' notes. However, Howe and Godfrey (ibid: 74-75) found that the students of both groups 'used roughly the same number of abbreviations'. Students who wrote a lot of notes but received low test scores used more abbreviations than the students who received high test scores. The students who took lengthy notes and received high scores used fewer abbreviations than most of the other students. Howe and Godfrey (ibid: 75) state that an analysis was also made of the type of articles used in the notes. The subjects varied in their use of definite and indefinite articles. While some students did not use any articles, others used either one 'as many as 29 times'. In the notes of the six students who took the highest amount of notes, an 'inverse relationship' between the number of abbreviations and articles used was found.

Howe and Godfrey state that in general, the data from the notes and the students' performance on the recall test revealed little evidence of any systematic relationship between the variables examined. They argued that the findings of this study were 'disappointingly uninformative' (ibid: 75-76); the findings lead them to believe that it is unlikely that such naturalistic studies produce any evidence of the effects of certain factors. This contradicts what Hartley and Marshall (1974) predicted from the results of their study that investigations as this can provide 'clear quantitative data'. Howe and Godfrey (ibid: 77) studied the notes of six psychology students who wrote a large number of notes. They found that the students who used very few abbreviations and had many redundant words in their notes did better in the test than those who took many different abbreviations and had little redundancy in their notes. This unexpected evidence was difficult to explain (Howe and Godfrey, ibid: 78), for 'effective' NT and later recall should correlate, as Howe's (1970) found. With results such as these, one must be cautious in suggesting that note takers should use as many abbreviations as possible in order to save time as advised in 2.2.2.2 above.

Howe and Godfrey (ibid.) state that the inspection of the notes taken in this study also suggests that most students copy whatever is written on the board believing that everything is important. They found an anecdote that had no importance to the subject matter of the lecture recorded in the notes of most science students only because the lecturer wrote it on the board. This shows that the activity of writing items on the blackboard, as discussed in 2.2.2.2 above, is a way a lecturer uses to draw students attention to important items.

2.3.2 Variations in Notes

There have been only a few attempts to investigate variations in notes. Ngarari (1990: 30) explains why this might be so arguing that isolating any variable directly related to the way different students take notes is difficult to do. She (ibid.) reports Hartley and Davies's (1974) observation that most researchers do not consider any variability in NT because they assume that there is 'an identifiable, unitary note taking "method"' that students use consistently in different situations. Among the researchers who have criticized these assumptions, Ngarari (ibid.) adds, are Fisher and Harris (1974) who found that NT practices of university students are 'varied'. Their students reported factors affecting NT and leading to variability in notes, such as 'the lecturer, the relevance of the subject matter, and the

"mood"'. Also, Hartley and Davies (1978) studied the number of words written by two groups of note takers, men and women, in a series of lectures; they found, Ngarari (1990: 32) reports, that 'notes vary substantially between students and within students for different lecture courses and different lecturers' due to two main factors: individual differences and instructional variables; this supports the discussions in 2.2.5.1-2.2.5.2.2 above.

Ngarari (ibid.) states that some of the individual differences which have been reported to affect NT are: 'sex differences, age\experience and personality factors such as intelligence, memory, cognitive style, etc.' While Peters (1972) reported no differences in NT between genders, Nye (1978) and Hartley and Trueman (1978) found that 'women take more notes than men'. These studies agree with Maddox and Hoole's (1975: 21-22) finding that 'women take fuller notes than men', as discussed in 2.3.1 above. Williams and Eggert (2002: 184-185) cite four other studies that reached a similar conclusion. They report Kiewra's (1984) finding that 'female students noted more critical points, test-related points, and words than did male students. Also, females significantly outscored males on delayed exams over lecture material'. Cohn et al. (1995) also found that females recorded more words and detailed information than males, and Eggert (2000) found that 'females recorded more complete, extended, and accurate notes than did males'. In addition, Carrier et al. (1988) examined the relationship between gender and NT preferences and found that 'females valued notetaking more than males, had greater confidence in their notetaking skills, and viewed themselves as more active notetakers'.

Difference in the experience that note takers have also produces variations in notes. Nye (1978) found that first year students 'take down fewer words and fewer main points' than other students; also, experience was a more 'significant variable for men than it was for women'. Poppleton and Austwick (1964) also found that NT favoured experienced students (Ngarari, 1990: 32-33). Williams and Eggert (2002: 185) agree that NT skills 'increase across the college years'. They report Cohn et al. (1995) finding that 'upper-level college students were significantly better notetakers than lower level students'. Palmatier and Bennett (1974) owe the academic level difference in NT to the fact that 17% of college students receive instruction on how to take notes. Then the students NT skills are developed by the students themselves through time and experience.

Instructional variables, Ngarari (1990: 32-33) states, also lead to variations in NT. Factors such as 'knowledge of forthcoming tests, the structure of the lecture, relevance of lecture, and use of visual aids' all lead to variability in NT. She (ibid: 33-34) reports Weener's (1974) finding that 'students who expected a test immediately after the lecture took fewer notes than those who expected one a week later'. Weener explains that students usually want to store more information in their short term memory for immediately expected tests, whereas they would usually want to store the information in notes for later tests. Thus, personality factors such as memory play an important part in the variability in NT.

In her study, Ngarari (1990) examined cultural background as a variable that accounts for variations in NT. She (ibid: 4-5) contends that cultural background affects students' behavior in a learning situation since different countries have different educational philosophies and school cultures; hence, it is unrealistic to expect students from different cultural and school backgrounds to behave in the same way in a learning situation. Ngarari examined two groups of students, British and Southern African, to determine the effect of cultural background, which she uses to refer to the school culture and the language used in lectures, on variability in the students notes. This investigation involved two experiments: a questionnaire and a comparison of lecture notes of the two groups.

The questionnaire involved twelve yes\no questions taken from Habeshaw and Habeshaw (1987) on NT problems and techniques. The two groups she used in this experiment were randomly chosen male undergraduate and postgraduate students. The most interesting of the students' responses to this questionnaire was that 'the two groups differ significantly in the way they take notes'. 93% of the African students stated that they write very few notes and that they 'miss a lot of what the lecturer says'. By comparison, 80% of the British students stated that they write many notes; only 27% of this group claimed to miss a lot of what is communicated in the lecture. In spite of this significant difference between the groups, Ngarari observed that the two groups agreed on their need to be informed by the lecturer about the lecture organization in advance (Ngarari, ibid: 36).

The second experiment involved a comparison of lecture notes taken by three students from each group; all the students except one from the British group were male. Ngarari (ibid: 38) states that a recording of the lecture was made by one of the students who was the

only one aware that an experiment was taking place. The notes were borrowed from the students and analysed for the following five features:

1. Number of Words Recoded: Ngarari (ibid: 38-39) states that after counting the number of words and abbreviations in the notes, it was observed that 'British students wrote more words than African students, with an average of 598 words against the 441 of the Africans'. This finding confirmed the response the students gave in the questionnaire.
2. Number and Variety of Abbreviations: Ngarari (ibid: 41-42) found a clear difference in the number and variety of abbreviation used by the two groups. British students were again more advanced in terms of the average of abbreviations they used in comparison to the Africans. The former group had an average of 61 abbreviations, while the latter had an average of only 16. There was also a clear negative correlation between the number of words and the number of abbreviations that the African students used; those who wrote more notes used fewer abbreviations. Such a correlation was not found among the British students. Two types of abbreviations were used: standard, which were widely used by the African students, and idiosyncratic, such as 'dr' for 'dry', which were used together with the standard type by the British students.
3. Use of Definite and Indefinite Articles: Ngarari (ibid: 43) reports a difference between the two groups in the number of articles used. The British students used 3 indefinite and 13 definite articles; by comparison, the African students used 4 indefinite and 21 definite articles. Some students used no articles while others used many.
4. Use of Symbols: Ngarari (ibid: 44) observed significant variations in the type of symbols used by each group to represent such relationships as cause and effect, equivalence, consequence, etc. The African students mainly used common signs, such as '+' for 'and' and 'in addition', '%' for 'percentage', etc. In contrast, British students used more sophisticated symbols, such as '♀' for 'female', '♂' for 'male', etc.
5. The Efficiency of the Notes: Ngarari (ibid: 45) compared the notes taken by students with a set of 'ideal' notes to determine the efficiency of the notes. She argues:

> The term "efficiency" is a most debatable point, especially in note taking where it would be true to say that most efficient notes are those which are fewest while allowing the student to reconstruct the greatest amount of the lecture.

Ngarari measured the efficiency (or effectiveness) of the students' notes depending on the total number of 'informational units' recoded, i.e. the main points recorded in a specific amount of time. A transcript from the recording of the lecture in addition to the lecturer's original notes were used to write the ideal notes; Ngarari thus imitated Hartley and Cameron (1967) and Maddox and Hoole (1975) approaches. The number of informational units were 94 in total, distributed over a succession of 5-minute periods. The notes were scored for the number of informational units in them, then the average score for each group was counted.

Ngarari (ibid: 46) states that the results of this comparison showed that the British students were more efficient note takers than the African, for they recorded more informational units. The British students recorded an overall 61% of the total informational units transmitted, while the African students only recoded 48% of the units. Ngarari (ibid: 49) argues that this finding, together with the fact that British students used more symbols and abbreviations and less articles and redundant words than their African counterparts, which all basically constitutes what good notes are (as discussed in 2.2.2.2 above), confirmed the basic prediction of the study that British students are better note takers than African students. Ngarari (ibid: 49-51) justifies this finding arguing that the African students cannot wholly be blamed for their apparently less highly developed skills of NT since the school system they went through is an important factor that could have affected the way they take notes. Also, the British students have the advantage of being native speakers of the language of instruction, while the African students have many other languages not similar to English. The African students have very little contact with English even in schools since teachers sometimes use the native languages whenever they are needed. Ngarari quotes Swan (1982) arguing that lecture NT for a student of English as a second language is 'far more a matter of doing the best he can in difficult circumstances'.

Another interesting study was carried out by Badger et al. (2001), in which they examined the variations in students' viewpoints regarding NT in lectures. One of their international students explained why he/she finds it difficult to take notes in lectures arguing, 'I have to concentrate on understanding what he [the lecturer] says. I don't have time to take notes (international)' (ibid: 410). This agrees with what has been said in relation to the importance of full comprehension for good NT in this chapter. As for the sample's view regarding the purpose of NT, Badger et al. (ibid: 409) state that the subjects gave three

reasons all of which were 'largely product oriented': notes are used as an aid for recall of the lecture material, they help with examinations and assignments, and are generally educational. The nature of the material written down by the sample was also different from one student to another. They (ibid: 410-411) state that nine of the 18 students in their study reported that they wrote down key and important points. Two of these students stated that they wrote useful information for essays and exams, which is what the researchers took as important information; however, Badger et al. argue that further investigation is needed to identify what key points are by relating the students' comments to certain lectures, the notes they take in these lectures and the lecturers' view of what is important. Also, five students, none of whom were international, stated that they wrote down as much as they could. As for the kind of information noted down, five students stated that they wrote factual information, and four stated that they wrote the lecturer's opinions. Only three students added their own ideas and responses to the notes. Badger et al. conclude that the type of notes the students take depend on how they consider lectures, i.e. whether they take them as 'monologues or dialogues'. Badger et al. (ibid: 415) also conclude that:

> understanding the views of students on note taking in lectures, and the considerable variation in how they conceptualise lectures, provides many insights into this component of academic literacy and ... is a necessary adjunct to other kinds of research in this area.

In another recent study, Sutherland et al. (2002: 380) compare the lecture notes of two groups of students: first year students of education, most of whom were studying to become teachers, and international students studying to become EFL teachers. They (ibid: 377) explain that they analysed the notes according to an extension by Sutherland of Hull's categories of good notes, and interviewed six students from each group to investigate why and how they took notes. Sutherland et al. (ibid: 384) report that their findings show 'not many noteworthy differences between the notes of native and non-native speakers'. However, four native speakers out of the 12 involved in the study realized that one of the main functions of lectures is to provide recommendations for further readings; by comparison, the non-native speakers as well as the rest of the native speakers involved saw lectures as instructional tools to provide information that should be learnt to pass exams. Another interesting finding was that four students used abbreviations in their notes, yet they

had trouble remembering what the abbreviations stood for! For more recent investigations of the differences between the notes of native and non-native speakers of English, see Clerahan's (1995) and White et al.'s (2000) studies reported in Badger et al. (2001: 406).

2.3.3 The Effect of Note Taking on Recall

As discussed in 2.2.3 above, Salimbene (1985: 82) states that good NT involves 'listening, comprehending, and writing during the lecture' which save time and promote learning since 'Learning is a product of effective note taking'. Ngarari (1990: 9) states that the activity of NT is assumed to lead to better recall (or retention) than passive listening, yet the few studies on this issue provide different arguments on the value of NT for recall. Hartley (1998: 80) summarizes the contradictory findings available in the literature. From over fifty studies of NT in this respect: 34 studies indicate that the process of NT aids recall, 19 show no effect of NT on recall, and four studies indicate that NT inhibits recall; also, 22 studies indicate that reviewing one's notes aids recall, and six studies show no effect in this respect. The fact that most of the studies cited by Hartley support the idea that NT has a positive effect on recall is enough proof of the importance of NT for recall and subsequent learning. However, in the coming sections we will discuss in some detail a selection of the three main types of effects reached in these NT investigations, i.e. the positive, negative and neutral effects of NT on recall, in order to shed light on the important studies in this area and their limitations.

Ngarari (1990: 12-13) states that the reasons for the contradictory findings in NT research can be attributed to the inconsistencies in these studies in terms of factors such as memory and intelligence, variation in subject matter between these studies, the density of the information presented, and the timing and types of the retention tests. Also, the quality of the notes taken by the subjects in these studies, in terms of length, accuracy, and the degree of encoding involved, was not taken into consideration in predictions about performance in the recall tests administered. In addition, the notes were collected immediately after the lectures, giving the students no chance to develop and make use of the notes. The absence of the opportunity to utilize the notes, Ngarari (ibid: 14) argues, is what accounts for the absence of marked differences in some of these studies between note takers and non-note takers in learning the information presented to them. Another factor that

causes these inconsistencies is that in some of these experiments, there was a fore-knowledge by the students that an experiment was in progress which encouraged them to try to 'to retain as much information as possible' (see also Howe and Godfrey, 1978: 24; and Peters, 1972: 276; 279 for more on the reasons for the different findings).

2.3.3.1 Note Taking as an Aid to Recall

Hartley (1998: 79-81) states that about twenty studies, without mentioning the researchers, found positive correlations between the amount of information written down in notes and the amount of information recalled which suggests that NT 'helps people to remember information'. One of the early studies indicating the advantage of NT on recall was carried out by Crawford (1925). In this study, Howe and Godfrey (1978: 22-23) report, Crawford divided the subjects into two groups: one took notes while the other did not. Recall tests and true/false items administered immediately after the lectures demonstrated a 'superior performance by note-takers'. Some days later, a similar result was reached on other recall tests. Ngarari (1990: 10) reports Crawford concluding that not taking down a certain point decreases the chance of recalling it in a test. Howe and Godfrey (1978: 53-54) cite that Crawford's (1925) found: ' a positive correlation (+.5) between the total number of lecture points that were correctly reproduced in notes and the number of correct points in recall tests'.

Howe and Godfrey (ibid: 24) report Weener (1974) describing one of the unpublished studies of D.C. Berliner in which he used a 45-minute video-taped lecture then gave the subjects a short-answer test. Results indicated that subjects who took notes during the presentation performed better than those who merely paid attention; the same result was reached a week later. Howe and Godfrey (ibid: 25) continue, Berliner's finding agrees with the suggestion that NT helps learners stay alert and pay attention which is why it is expected that 'the longer the study time, the more advantageous a note-taking condition would be'. Peters (1972: 276) reports two other studies that provide similar data to the above. McHenry (1969) found note takers performing significantly well on true/false and multiple-choice tests given immediately after a study period. Also, Peters and Harris (1970) found that subjects who were allowed to take notes during a taped presentation and others who were

provided with a prepared set of notes in topical outline form performed significantly better than a no-note control group on a subsequent multiple choice test.

In addition, Di Vesta and Gray (1972) found that subjects who took notes recalled more of the presented ideas than those who merely listened. At the time Di Vesta and Gray published their paper, they (ibid: 8) state, there was an awareness of the importance of the function of NT to enhance the recall of lecture contents in spite of the lack of research on listening. The written transcription of the material of the lecture appears to serve either one or both of two functions; namely, an 'external storage mechanism' which can provide a resource for future study or references for the learner (see also Miller, Galanter, & Pribram, 1960), and an 'encoding mechanism' which allows the learner to transcribe all the 'subjective associations, inferences, and interpretations' that occurred to him while listening to the lecture. Di Vesta and Gray (ibid.) argue that:

> In the extreme case, note taking which is used solely for the purpose of external storage can only be incompatible with efficient learning. Such notes tend to be taken in mechanical fashion, they interfere with attention, and they may engender a feeling that the task has been accomplished

Di Vesta and Gray (ibid.) state that when the learner feels that a good set of notes is not important for studying, he may avoid review, rehearsal, and even the simplest of transformational encoding. Therefore, the kind of NT which serves encoding should be more efficient than a NT activity in which the notes are used for external storage. This means that the learner should be active rather than passive in order to ensure a transaction between the learner and the material noted down. He would need to use encoding or transformational processes to put the material in long term storage. Through encoding, the learner links the material to his existing cognitive structure by making the data meaningful to him.

Di Vesta and Gray (ibid: 8-9) found through a free recall test and a multiple choice test administered after the subjects listened to three passages that when the study intervals between the passages were used for review, more words and ideas were recalled and the test scores on the multiple-choice test were higher. Thus, recall was 'favorably influenced by note taking, rehearsal, and testing' which agrees with what Di Vesta and Gray report Rothkopf and Bisbicos (1967) suggesting in their research findings that tests affect on recall. Di Vesta and Gray (ibid: 10-11) state that the free recall test was scored for the number of

words and ideas produced by the subjects. The number of words was counted by counting every word written, including articles; as for the number of ideas, they were judged by two scorers against a list of ideas from the original passage. They concluded from the results of the analysis that 'rehearsal prompts the individual to write "more"'. The number of ideas produced by the subjects was the most important measure in the experiment because it reflected both the acquisition and retention of the material while listening, and gave the best picture about what the subjects acquired.

Di Vesta and Gray (ibid: 12-13) state that strategies that emphasize NT, immediate review opportunity, and test events are efficient for the recall of main ideas of a presentation. They assume that subjects used material stored in memory to select ideas, and they were encouraged by the expectations, created from experimental instructions, to use efficient study methods, this is similar to what they report Chapman (1932) and Lawrence and Coles (1954) finding concerning the effect of post instructions on recall. The conclusion that 'learning increases following a rehearsal period' is not surprising since it is supported by results of other studies in addition to common sense observations. Di Vesta and Gray state that they proved that taking notes leads to an increase in the number of ideas that are recalled, for the notes the subjects took down increased scores on the multiple-choice test. Thus, NT does not interfere with learning but sensitizes learners to specific points in the data. When the notes are taken down, attention is given to the relevant information to select and organize it which increases the probability of recalling it even when the notes are not reviewed; hence, NT aids learning and facilitates encoding.

Fisher and Harris (1974) also favoured note takers to non-note takers when examining the effect of NT and the opportunity for review both before and after the lecture on later recall. They (ibid: 291) state that they attempted to measure the relationship between recall and both the quality of the notes taken by the students and the value of NT to students. They found that 'Females recalled significantly more data then males, but opinions concerning note taking and note taking habits had no effect on recall'; also, 'women had significantly higher scores than men' on both the multiple choice and free recall tests. Fisher and Harris (ibid: 291- 292) continue that the quality of the notes taken by the students depended on the number of ideas noted down from the lecture. A significant positive correlation was found between the quality of the notes and the free recall and the multiple choice scores. Over 90%

of the students who filled in the questionnaire believed that NT and notes reviewing aid recall. The better test performance of the female students supports results reached by an earlier experiment by Fisher and Harris and another by Todd and Kessler (1971). Nonetheless, Fisher and Harris state that further research will have to be done to determine if the subject matter, the instructor's gender, or a difference in memory ability between sexes are responsible for this result.

Fisher and Harris (1974) adopted the same approach used by Di Vesta and Gray (1972); Howe and Godfrey (1978: 38-39) stress the importance of Fisher and Harris's study arguing that they were able to distinguish between two important effects of NT for learning: 'the "encoding" or transforming function' that note takers obtain of personally taking notes and 'the "external memory device" function that would equally well be provided by notes' made by the lecturer. In their investigation, Fisher and Harris concluded that the external memory function is more important than the encoding function. The subjects who used their notes for review purposes did better than others; those who took no notes but reviewed the lecturer's notes did less well on the free-recall and the multiple-choice test. The latter group, however, did slightly better than the first on a recall test three weeks later. The subjects who took no notes and did not use the lecturer's notes for review did the least well. The groups who took notes but either used the lecturer's notes for review or did not do any revision had low recall marks. Fisher and Harris had predicted that the subjects who made no notes but depended on the lecturer's notes for revision would only make use of the "external memory device" function, while those who did make notes and depended on the lecturer's notes for revision would make use of both the "external memory device" and the "encoding" function. Howe and Godfrey (ibid: 58-59) explain this surprising finding arguing that the ability to retain information presented verbally is affected by the learners' ability to organize it; thus, when the material is presented in a format which clashes with their established organization, their performance may deteriorate. The suggestion that notes that learners make are especially useful for them is supported by studies by Kay's (1955) and Howe's (1970). Thus, since NT is a way of reproducing information which needs to be learned, note takers are expected to be 'good at remembering' what their notes contain. Ngarari (1990:10) reports Howe's (1970) observation that items recorded in the notes taken by an individual were about 'six times as likely to be recalled in a subsequent test' as those from the material

presented that were not recorded. Howe (1970), reported in Howe and Godfrey (1978: 32), also found, when asking the subjects to take notes while listening to a short passage, that they 'recorded about half of what were judged by the experimenter to be meaningful units of information' and a week later recalled 'on average, about a third' of the information they had written down. Ngarari (1990:10) reports Howe, Ormond and Singer (1974) providing supporting results to confirm this observation. In another research on this issue, Aiken et al. (1975) and in a similar replication Thomas et al. (1975) found correlations of the order of +0.60 and the order of +0.50 between NT and recall respectively which suggests that 'there is a high probability of recalling items that appear in one's notes than there is of recalling items absent from notes'.

Leathers (1982) also provides support to NT as an aid to recall. He (ibid: 40) found through testing his subjects after the lecture and then a week later that note takers are more successful than non-note takers. Also, Williams and Worth (2003: 203-204) report Kiewra (1983) finding a moderate to strong correlation between the number of points recorded in lecture notes and the students scores on the information of those lectures; 'Students were twice as likely to recall noted as non-noted information'. They (ibid: 204) also report Nye et al. (1984) finding that the total number of words in notes were a stronger predictor of test scores than attendance. And in a recent investigation, Mei-Chen (2006) found a positive effect of NT on the performance of a sample of EFL learners.

2.3.3.2 No Difference between Note Takers and Non-Note Takers

One of the early studies that found no effect of NT on recall was done by Jones (1923). Howe and Godfrey (1978: 23) report Hartley and Marshall's (1974) description of Jones' experiment in which he found no differences in the test scores between a group that took notes during a lecture and another that did not. The first recall test was three days after the lecture, and the second was twelve days after the lecture. Another study reaching similar results was done by McClendon (1958) in which three groups of university students were asked to do something different while listening to a lecture: '(1) record as many details of the lectures as possible, or (2) take notes in their customary manner, or (3) simply listen to the lecture'. Notes were collected after the lecture, which gave the students who took notes no time to review them before a multiple choice test of thirty items was administered. Test

scores indicated no significant differences in performance between the three groups, and the two NT instructions proved to be equally effective, Howe and Godfrey (ibid: 21-22) (also see Ngarari, 1990: 10-11). A later study by MacManaway's (1968) also found no differences in the performance of note takers and non-note takers in a recall test given one week after a lecture. Also, in (1970) Howe found no differences in the performance of two groups when asked to write what they could recall of the material fourteen days after the lecture. The subjects who took notes were also divided into two groups: one had the opportunity to review the notes, while the other did not. Again, there was no significant difference in learning between the two groups, Howe and Godfrey (1978: 22-23).

Eisner and Rohde (1959) study this relationship from a different point of view. They (ibid: 301-302) question whether or not taking notes during lectures is less effective to retain the material than simply listening to lectures and taking notes immediately afterwards. They report Gates (1917) finding through his retention studies that 'taking notes after lecture might be more conducive to retention than taking them during lecture'. In their study, Eisner and Rohde, asked a group to take notes during the first lecture and were given time to study them after the lecture; on the other hand, another group was asked not to take notes but to concentrate intensely on the lecture and to be prepared to take notes and review them immediately after the lecture. During the second lecture, the groups swapped tasks, and were asked to hand in their notes to the investigators for scrutiny. Two days later the groups were tested using true/false questions and an essay question on the material of the lectures, and three weeks later, an unannounced test containing 100 true/false items on the two lectures was administered. Eisner and Rohde (ibid: 303) concluded that NT during lectures is not superior to delayed NT which means that NT does not aid learning and understanding; see also Peters' (1972: 276) report of Pauk's study (1963) and Ngarari (1990: 11).

2.3.3.3 Note Taking Inhibits Recall

One of the early studies that found adverse effects of NT upon performance and recall is that carried out by Ash and Carlton's (1953). Fisher and Harris (1974: 291) and Howe and Godfrey (1978: 58) report that the findings of this study indicate that NT lowers performance and may deter learning. Ash and Carlton (1953) asked two groups of students to watch a film allowing only one of the groups to take notes; the latter group recalled less

of the content of the film than the former, which means that the activity of taking notes prevented attention to the film. Also, Howe and Godfrey (ibid: 26-27) state that McLeish (1968) reports an experiment done by P. J. Freyberg (1956) in which some of the findings 'favoured subjects who did not take notes'. These subjects were able to recall the content of a lecture immediately after listening to it more accurately than two other groups who either took detailed or outline notes. Two weeks later, the same result was reached, but eight weeks afterward, the performance of those subjects who took no notes was poorer than that of the other subjects. In addition, Croxton and Martin (1965) suggest that 'in some circumstances note-taking may lead to difficulties in understanding'.

Peters (1972) studied the effect of NT on listening and the effect of variations in presentation rate. Peters (ibid: 276) states that in spite of the support by teachers, NT during lectures is thought by students to impede their LC and therefore the acquisition and learning of the information. The students' point of view is that while they get busy writing down a point, they miss others. The finding reached in this study indicated 'a deleterious effect' of NT upon recall because it would interfere with listening which contradicts the findings of earlier research that suggested either no or a facilitating effect of NT. NT was found to limit 'the amount of information processed and stored'.

Ngarari (1990: 12) reports a similar experiment to Peters' conducted by Aiken et al. (1975) and Thomas et al. (1975) who assumed that listening and writing simultaneously interfere with each other. They found that separating listening and NT by allowing students to take notes between the segments of a lecture rather than during the lecture is beneficial. In a more recent investigation, Hadwin et al. (1999) study 'working memory, verbal ability and prior knowledge' as predictors of: the quality of notes taken during a lecture, summaries of the lecture produced during review, and recall of the content of the lecture (Sutherland et al., 2002: 379). Three groups of students were involved: the first listened to the lecture, took notes and reviewed their notes, the second only listened to the lecture without taking notes and reviewed a set of notes that was provided to them, and the third listened, took notes and reviewed a set of notes provided to them. The findings showed that the 'students with better working memories benefited more from listening to a lecture than listening and taking notes'. The most effective condition was that in which the students concentrated on listening to the lecture and were then provided with a prepared set of notes.

The above discussion of the contradictory findings regarding NT and recall and the fact that most of the studies cited by Hartley (1998: 80) support the idea that NT has a positive effect on recall and subsequent learning as discussed in 2.3.3 above, provide enough evidence to support the importance of NT for recall and subsequent learning. Some students write less information than others in lectures either because they already know the information they listen to or because they have it written in another source, for example, a book or other notes, etc. We can conclude that in the cases when students do not write down the important information that is new to them in their notes, they miss out on the opportunity of recalling it later. We can also conclude here that testing recall of the important information in a lecture can reveal the extent at which the note taker has understood and learned the contents of a lecture. Therefore, as will be discussed in more detail in 4.3.2.2 below, the sample in this current study was involved in 5-minute interviews (or oral recall tests) to measure the students' recall of some of the important information in the lectures delivered in this study.

2.4 Locating the Current Study in the Literature

Howe and Godfrey (1978: 19-20) state that there are two kinds of NT studies in the literature: investigations designed to answer direct questions about NT in order to solve problems faced in education, and investigations related to psychological learning, which emphasize the nature of the NT procedures that affect learning. They add that most of the research carried out before 1960 can be related to the first category, while much of that undertaken after that period falls under the second category. However, there are a number of research findings that contribute to both categories, i.e. they answer direct and practical questions in addition to providing a deeper understanding of the psychological processes involved in NT. This current study aims to follow this last category of NT research by attempting to answer both educational and psychological questions about NT. It pays attention to some of the aspects that have been either overlooked or recommended by researchers in the field of NT investigation.

The studies discussed in this chapter have provided many interesting findings in addition to research questions that inspire new lines of investigation. To the best of the researchers' knowledge, there has been no effort to study Arab EFL learners' lecture notes.

The above studies, most specifically Hartley and Cameron's (1967) investigation of the effectiveness of notes, have inspired this current study and provided the researcher with questions that have helped draw a picture of the way Omani students, considered by the researcher as representatives of Arab EFL learners, take notes and the factors that affect their comprehension of the lecture material.

The central question being investigated in this study is: How effective (or accurate) are the notes that Omani EFL students take during lectures delivered in English? Thus, the main concern in this study is investigating the efficiency (or accuracy) of students' notes in reproducing a useful record of the material of the lecture. The term 'accuracy' is used here to denote that when notes are accurate, they become effective and useful records of the lecture content. The term 'accuracy' of notes has been connected to 'effectiveness' or 'efficiency' of notes by many researchers; for example, Howe and Godfrey (1978: 13) state that a number of studies measure the accuracy of the notes taken by students by investigating whether or not students reproduce the content they intend to record accurately. In one of their studies, they investigated 'How accurate are the notes that students make in recording lecture contents judged to be important' (ibid: 67-69). This is similar to what we seek to answer in the current study. Also, Schultz and Di Vesta (1972) suggest that organized lectures help students produce 'accurate' notes, for they help note down the relationship between the important ideas in the lecture (Ngarari, 1990: 34). In addition, Williams and Eggert (2002: 184-185) report Eggert's (2000) finding that 'females recorded more complete, extended, and accurate notes than did males'. The need to investigate the accuracy of notes is proposes by Williams and Worth (2003: 204) who argue that among the aspects of NT that are neglected is 'the accuracy of student notes, a variable that would likely interact with the quantity of notes in affecting performance'.

The need for further research in other NT aspects has been stressed by many researchers; for example, Howe and Godfrey (1978: 45) recommend an examination of the form and nature of the notes taken by learners, arguing that such an investigation may give insights into the cognitive strategies they use and help form predictions about the way they learn. They (ibid: 56) also recommend the identification of the general characteristics of the notes made by different learners as an indication of useful procedures and strategies of NT. Yet, such an investigation, Ngarari (1990: 30) argues, is not easy to do, for 'it is very

difficult to isolate any variable that is directly related to the way different students take notes...the area of variations in note taking has been neglected by researchers'. Also, another aspect that needs attention is training in NT. Hartley (1998: 79) maintains that 'there has been very little research on the effectiveness of training in different notetaking strategies'.

The above comments regarding the missing aspects in NT research have been taken into consideration in this study. This study also tries to incorporate research questions suggested by researchers in the field such as: Hartley and Cameron (1967: 31-32), Fisher and Harris (1974: 291-292), Heaton (1975: 18), Maddox and Hoole (1975: 22-23), Howe and Godfrey (1978: 56), Rowntree (1988: 144), Chambers and Northedge (1997: 85), and Hartley (1998: 79), as will be discussed in the next chapter. Moreover, it tries to follow suggestions regarding the methodology used to investigate some of the aspects studied; for example, Badger et al.'s (2001: 410) suggestion to identify the nature of key points by relating the students' comments to certain lectures, the notes they take in these lectures and the lecturers' view of what is important is taken into account in this study. This is done through a questionnaire (see 3.5.2.4 below) focusing on what the sample thinks about one of the lectures delivered in this study which were compared with their notes in that lecture and the lecturer's outline of the important key points in the lecture.

In order to investigate the effectiveness of Omani EFL learners' lecture notes, two lines of investigation are followed: the study of the samples' answers to a set of questionnaires and interviews, which investigate a number of aspects of NT from the students' points of view; namely, the purpose of NT, the methods they use to take notes, and the factors affecting NT, and the direct study and analysis of the samples' lecture notes. The first line of investigation provided a foundation on which the second line of investigation, i.e. the analysis of the sample's lecture notes for their effectiveness, was based. This method of investigation was designed to reach a deeper understanding of the students' notes. The NT aspects have helped draw a picture of the strengths and weaknesses that each student has before his notes were analysed for effectiveness against the data communicated in the lecture from which the notes are taken. The notes are marked based on Hartley and Cameron's (1967) technique of counting information units, as will be discussed in the next chapter.

CHAPTER THREE
METHODS

In this chapter we aim to describe the methods used to answer the central question being investigated in this study; namely: How effective are the notes that Omani EFL students take during lectures delivered in English? This question has been answered through the direct examination of students' notes and the investigation of a number of aspects of NT: the purpose of NT from the students' point of view, the methods they use to take notes, and the factors affecting NT.

3.1 The Study Sample

The sample involved in this study are first year university students at SQU in Oman. The sample consisted of two groups represented in the students of two separate classes taught by the researcher, as will be explained below. One of the groups was randomly chosen to act as an experimental group, while the other was considered the control group. The purpose of having an experimental versus a control group arises from the fact that one of the aims of this study is to investigate the effect of training in NT on the notes of students. The experimental group was involved in a two-hour NT workshop after which their notes were studied and compared to other notes from the same group taken before the workshop. As for the control group, no NT workshop was provided; the students were simply given the same two lectures the experimental group was presented with in order to compare the performance of each.

It is safe to say that the students involved in this study represent a wide sample of Omani students at the university level. They are students of the College of Arts and Education, all of whom, as found out in the interviews with them, had taken all or some of the intensive programme levels before joining the credit course. The sample involved in this study is students in the English for English Specialists (EES) programme in the Credit English Language Programme (CELP) which is the final prerequisite programme required of the students before joining their departments to major in English. They were also taking relatively the same other credit courses and a few elective courses at the time of the study. Consent was obtained to do the study with the students from the programme coordinator. In

addition, the students also agreed to be interviewed and fill in the questionnaires of this study; however, they were unaware of their participation in the study during the two lectures delivered to them, as will be discussed in 3.4.3.2 below.

3.2 The Speaking Course

Students joining SQU are registered in both the colleges they are accepted in and the Language Center at the university. Students are not allowed to register in any of the subjects in their respective colleges before completing the necessary English programmes in the Language Center. The number of programmes required of the students depends on the scores they get in the placement Language Center test. In the Language Center, students receive basic language skills in order to acquire knowledge for their different colleges. The Language Center offers two major English language programmes: first, the Intensive English Language Programme (IELP) after which the students enroll in the Credit English Language Programme (CELP). The majority of students registered at the university start with the IELP in which they need to pass a certain number of programme levels before they are allowed to join the CELP. The students are placed in their suitable levels based on their grades in a placement test administered as they enter the Language Center. In the IELP, the students are trained in the four basic language skills: reading, writing, listening, and speaking through which they are introduced to some useful terms related to their fields of study. In the CELP, the basic skills are re-enforced and the students are introduced to more field specific terms. If a student gets a high score in the placement test, this allows him/her to directly register in the CELP after taking an exit test in the Language Center.

After passing the IELP and the CELP programmes, students can pursue their degrees in the college they registered in (Science, Engineering, Agriculture, Commerce, Education and Arts) in which the medium of instruction is English. Also, in the CELP programme students are encouraged to develop independent critical thinking skills and competence in English through emphasizing on research, data analysis, and discussions. Students' learning and achievement are measured by a variety of tests. Study skills are also emphasized in order to help students become more effective learners. The rationale of having two programmes in the Language Center is that as Omani students join the university, the IELP programme builds their confidence about their knowledge in English. Then upon joining their colleges,

the CELP programme supports them with the English Language training they need at this higher level to be able to understand technical texts and lectures and to do the tests and assignments expected of them, Internet 1.

This study took place within a CELP speaking and listening course (LANC 1118-Language Skills II) that the subjects involved in the study took in the Language Center at SQU. The course was taught by the researcher in the fall semester of 2005-2006. The main aim of this course is to improve students' ability to speak accurately, fluently, and clearly and to understand spoken English. The course involves student-centered activities that require students to use what they learn from previous courses and personal reading in order to participate in class discussions and prepare presentations on a variety of topics related to different social and environmental issues. Two books are used in the course, an in-house book and an advanced Listening and Speaking book (Preiss, 2004). Little grammar is presented; rather, students are introduced to new vocabulary and asked to use it in discussions. They are also trained to use basic intonation patterns and deal with pausing and rewording. Students are interviewed regularly after class discussions to assess their reading, speaking and question formation abilities on relevant topics to those discussed in class.

3.3 The Pilot Study

The pilot study was administered in the fall semester of 2004-2005 in the Language Center. It involved two questionnaires that have helped give the researcher an insight about whether or not the students have been trained in NT in lectures in addition to the type of problems or difficulty they face in this skill. The answers given to the questionnaires have also helped develop the final questionnaire and interview questions used in the study. It is important to note here that the questionnaires of the pilot study were distributed to a different sample than the one that received the final version of questionnaires in this study, but the two samples were studying the same speaking course discussed above.

3.3.1 Pilot Questionnaire No. 1

Pilot questionnaire No. 1, see Appendix 1, basically intended to ask general questions. Its design was based on a straightforward and easy questionnaire about reading comprehension strategies administered by Al-Brashdi (2002) at SQU which proved to be

useful and informative. Questionnaire No. 1 asked 40 randomly chosen students three open ended questions in Arabic; the following is a translation of each:

1. *Mention the difficulties that you face when listening to the English language. State as many as you can.*
2. *Have you ever been trained in taking notes while listening to the English Language?*
3. *How many hours do you spend on listening to the English language per week inside and outside the classroom?*

The students were asked to answer in Arabic to ensure they are able to express themselves easily and clearly. Students were also encouraged to explain their answers and provide comments if possible. The results of this questionnaire are discussed below.

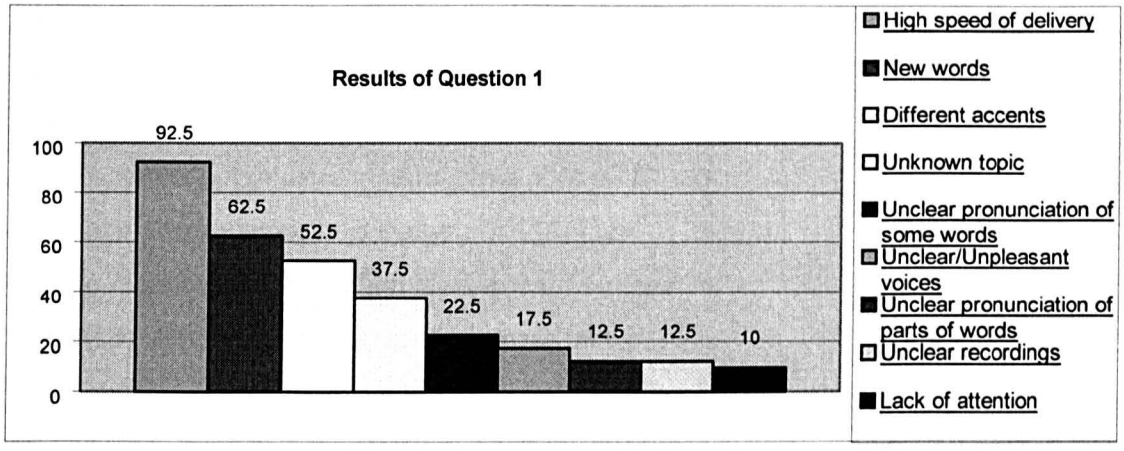
3.3.1.1 Question No. 1

The following are the most frequent answers that students gave to this question. Most of the answers given relate to listening to live lectures; a few others relate to listening to taped conversations and short talks. Below, responses are organized from the most common to the least. See the chart below for a clearer picture of the results.

Table 3.1 – Difficulties Faced when Listening to English

Difficulty Reported	Percentage of Students Reporting Each
High Speed of Delivery	92.5%
New Words	62.5%
Different Accents	52.5%
Unknown Topic	37.5%
Unclear Pronunciation of Some Words	22.5%
Unclear/Unpleasant Voices	17.5%
Unclear Pronunciation of Parts of Words and Unclear Recordings	12.5%
Lack of Attention	10%

Chart 3.1 – Difficulties Faced when Listening to English



High speed of delivery was the most common complaint as shown above. The second most common complaint was with respect to dealing with new words. As for the third, students reported finding dealing with the different accents of the teachers they listen to in lectures or speakers on tapes difficult and challenging, i.e. they might be accustomed to a British speaker in class and end up listening to an American speaker on tape and vice versa. Notice that unclear and unpleasant voices, which are two different aspects of the quality of input, were linked together. This does not reflect the students' inability to distinguish and specify the type of difficulty they face while listening; rather, it was merely done here to group the respective aspects in one category for ease of reference. 17.5% of the students reported difficulty with voices, some with unclear and others with unpleasant voices. Also, 12.5% of the students reported difficulty with the speakers' pronunciation - some with unclear pronunciation of all the words they hear and others with only part of the words they hear in recordings.

The following answers were also given by a few students to the respective question, some of which are more to do with task completion or class situation rather than merely listening:

1. 7.5% of the students reported that when listening to a tape in a lecture, they find it difficult to understand the material when it is not repeated enough times.

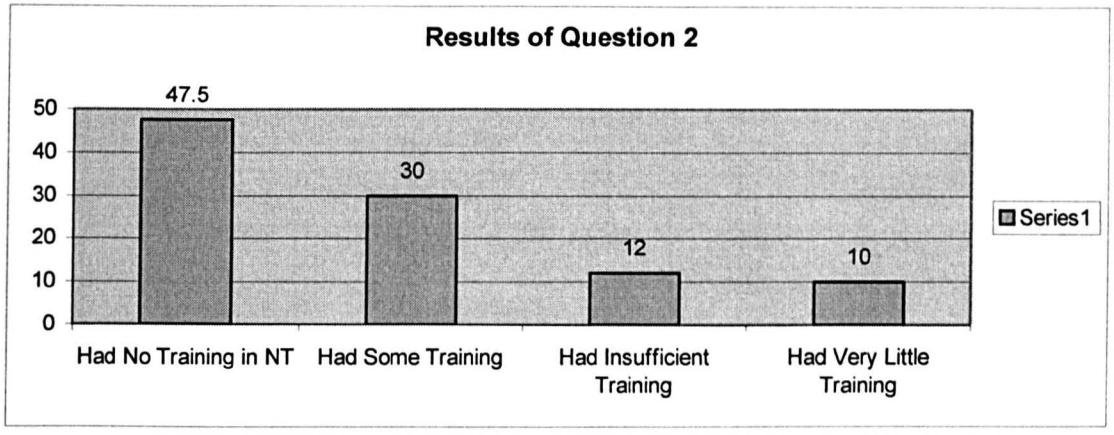
2. 5% of the students said that they find it difficult to deal with questions that are not straightforward; they also stated that they are not used to listening to English or have not been trained in listening to English.
3. 2.5% reported that their problems relate to:
   a. Acoustics of the room;
   b. questions not organized as material appears on tape;
   c. not enough exercises in class;
   d. no face-to-face interaction with speaker on tape;
   e. distractions such as background music on tape;
   f. not enough time to read questions after listening;
   g. being accustomed to listening to one gender rather than the other in schools;
   h. use of colloquial/informal language (especially the lexical aspect of everyday speech);
   i. memory failure;
   j. attention on other activities while listening, such as taking notes.

Notice that some of the above answers, specifically b, c, f, and g, represent what students found difficult to deal with when listening to English in class with respect to the teacher or teaching tool used rather than specifically pointing to the actual listening event or the input represented in the message being communicated.

3.3.1.2 Question No. 2

47.5% of the students said they had no training in NT in the IELP. This finding in particular was unexpected, for the researcher is aware of the presence of and had taught a NT component in the final level of the IELP, which is the level this sample had finished before joining the speaking course in which the pilot test was administered. This indicates that these students were either not provided with training in NT or did not realize what they had been involved in when they were being trained. On the other hand, 30% of the students claimed they had been trained in NT without specifying the number of hours per week. 12% of the students felt that this training was 'insufficient', and 10% reported that they had 'very little' training in the IELP. See the chart below for a clearer picture of the results:

Chart 3.2 - Training in Taking Notes while Listening to English



3.3.1.3 Question No. 3

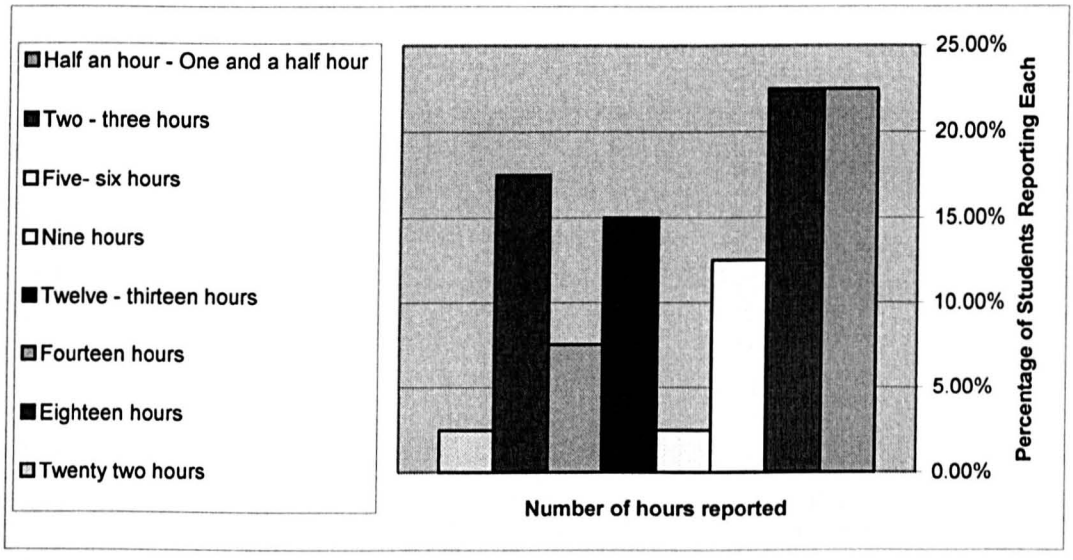
3.3.1.3.1 Listening Inside the Classroom

This question did not limit the students to the number of hours spent on listening to a specific type of material in class, i.e. whether the material is the lecture itself or taped material. However, most students understood the question as asking for the total number of hours spent listening to taped material in class; they said that the number of hours range from 1-3 hours a week. This is quite a reasonable answer taking into consideration that it is the true number of hours spent in practice of listening to taped passages and conversations as required in the EILP programme in the LC. Other students understood the question as asking for the number of hours spent on listening to lectures in English; they said that the number of hours range from 12-18 hours a week, which is a fair representation of the number of hours most of these students spend in English classes. Other answers appear to be unreliable; three students argued that the number of hours spent listening is only approximately half an hour; another answer was around 22 hours spent in listening to English in class, which cannot be true since none of the students are allowed to take this amount of hours in the LC or the English Department. The latter answers can be understood as a reflection of the students' inability to understand the question, while the former were more reasonable answers taking into consideration that the question was not specific to listening to taped material or live lectures. The following are the answers provided followed by a results chart:

Table 3.2 - Number of Hours Spent Listening to English Per Week

Approximate Number of Hours Reported	Percentage of Students Reporting Each
Half an Hour - 1 and a Half Hours	22.5%
Two - Three Hours	22.5%
Five- Six Hours	12.5%
Nine Hours	2.5%
Twelve – Thirteen Hours	15%
Fourteen Hours	7.5%
Eighteen Hours	17.5%
Twenty Two Hours	2.5%

Chart 3.3 - Number of Hours Spent Listening to English Per Week



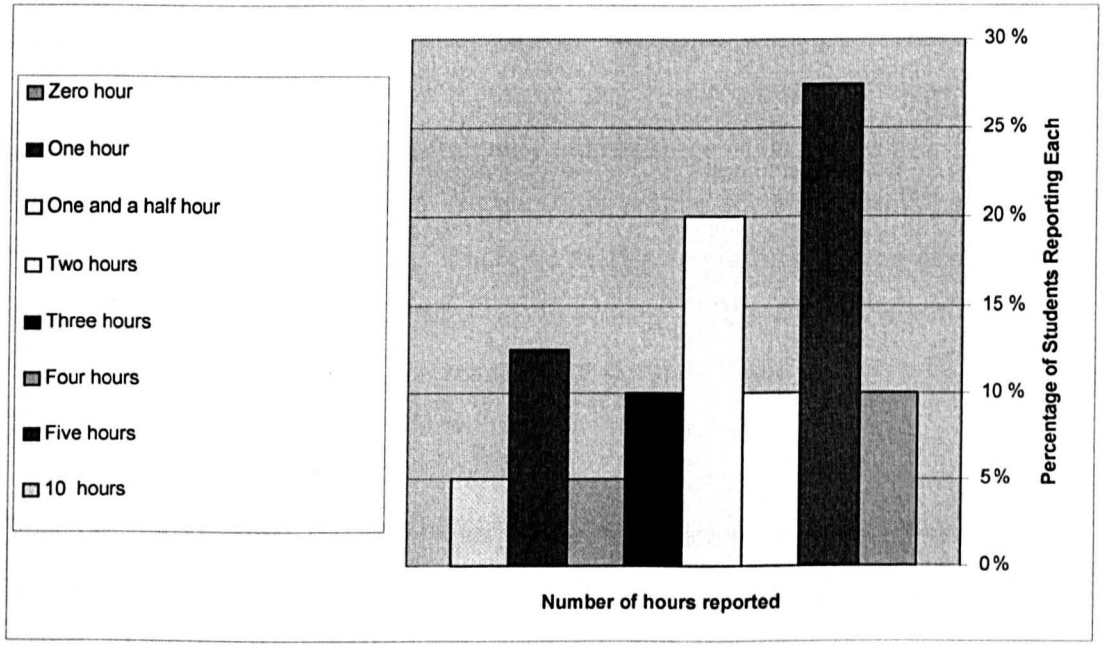
3.3.1.3.2 Listening Outside the Classroom

As for the second part of the question, i.e. the number of hours spent in listening outside the classroom, some students gave a range of one to ten hours, while others stated that they do not practice listening outside the classroom at all. The following is an account of the approximate hours the students reported; see the chart below for a clearer picture:

Table 3.3 - Number of Hours Spent Listening to English Outside Classroom

Approximate Number of Hours Reported	Percentage of Students Reporting Each
Zero Hours	10%
One Hour	27.5%
One and a Half Hours	10%
Two Hours	20%
Three Hours	10%
Four Hours	5%
Five Hours	12.5%
Ten Hours	5%

Chart 3.4 - Number of Hours Spent Listening to English Outside Classroom



3.3.2 Pilot Questionnaire No. 2

One of the advantages of piloting was that most of the students' answers to the first pilot questionnaires provided the researcher with a wealth of ideas to incorporate into the development of the second pilot questionnaire and later the final study questionnaires and interview questions. The questions of the second pilot questionnaire were generated by preparing a list of the most common and interesting answers provided by the students in the first pilot test which were later rephrased in the form of more readable and clearer statements to which the students gave their answers. In addition to the information gathered from the students' answers to the first pilot questionnaire, information gathered from the literature about the factors that affect listening, discussed in 2.6 above, was also integrated into the second pilot questionnaire.

Pilot questionnaire No 2, see Appendix 2, was designed in order to ask students more specific questions about the problems they face in taking notes while listening to lectures delivered in English. 23 of the students who participated in the first pilot questionnaire represented the sample of the second pilot questionnaire. They were given the second questionnaire to fill in around three months after they were given the first questionnaire which provided a good time gap to ensure they could not simply repeat the answers they gave to the first questionnaire but actually rethink some of the issues they were asked about. Again, the students' answers to the questions of the second questionnaire were used to develop the final set of questions that were used in the interviews and questionnaires of the study. However, some of the questions appearing in the second questionnaire were not further investigated in the final version of the questions used in the study for these seemed less relevant to the study than others.

The findings of the second questionnaire were generally consistent with those of the first, for the students generally had the same concerns and confirmed the difficulties identified in the first pilot questionnaire. The following are the results of the statistical analysis of the answers followed by some of the most useful findings:

3.3.2.1 Live Lectures

The following are the results of the part concerning factors related to listening to live lectures with emphasis on the speaker as the source of the material:

Table 3.4 - Factors Related to the Speaker in Live Lectures

	Factors Related to the Speaker (Live Lectures)	Completely Unimportant	Unimportant	Medium Importance	Important	Very Important
1	Unclear pronunciation of some words	0%	4.34%	13.04%	21.73%	60.9%
2	Unclear pronunciation of parts of words	4.34%	8.7%	34.8%	30.43%	21.73%
3	High speed of delivery	4.34%	0%	8.7%	34.8%	52.17%
4	Unclear/Unpleasant voices	0%	13.04%	30.43%	47.82%	8.7%
5	Different accents	0%	26.08%	21.73%	39.13%	13.04%
6	New words	0%	8.7%	17.4%	34.8%	39.13%
7	Gender of the speaker	30.43%	21.73%	13.04%	26.08%	8.7%
8	Use of colloquial language	21.73%	0%	39.13%	17.4%	21.73%
9	The level of difficulty of the material spoken	0%	4.34%	17.4%	39.13%	39.13%
10	Attention on exercises while listening	8.7%	0%	26.08%	26.08%	39.13%
11	Un-relaxed atmosphere	0%	13.04%	26.08%	21.73%	39.13%
12	Relationship with the speaker	21.73%	17.4%	17.4%	34.8%	8.7%
13	Distance of the speaker from the listener	0%	13.04%	30.43%	30.13%	17.4%
14	Unsuitable room for clear listening	4.34%	8.7	34.8%	21.73%	30.43%

The most important finding of this questionnaire is that one of the factors that listeners find very important and influential in the delivery of live lectures is the clarity of the pronunciation of 'some words'. 60.9% of the students felt this is a very important factor that affects their listening. This means that the students fail to identify many of the words spoken by the teachers and have to guess or infer them. What is dangerous in this kind of practice is that some of the guesses might not be correct which affects comprehension in general, let alone taking notes or answering questions. Another factor that is of a relatively similar importance is clarity of the pronunciation of 'parts of words'; most of the students' answers indicated that this factor is of 'Medium Importance-Very Important'. Sometimes the listeners are not very sure about the exact words they hear either because they do not know them or because some parts of these words are distorted or unclearly pronounced, which is a normal characteristic of speech taking into consideration factors such as elision or assimilation.

High speed of delivery was also found an important factor affecting listening; the majority of the students gave it the range of 'Important-Very Important'. This is quite understandable and expected since speed has been a factor known to have a very influential effect on listening as discussed in 2.2.5.1.3 above. In addition, unclear or unpleasant voices was regarded as a crucial factor affecting listening. The majority of the students gave it the range of 'Medium Importance-Important'. Unpleasant voices is one of the factors that the

students reported in the first pilot questionnaire. This shows that the listener's mood and attitude towards the speaker's voice can affect his LC. This confirms Dean and Bryson's (1961: 462) argument that the listener may be swayed in favour of a speaker's pleasing voice, as mentioned in 2.2.5.1.1 above. It has been used in this questionnaire in order to verify it as a factor that affects students' LC. The students also stated that the different accents they listen to in different classes is also influential. Most of the students ranged it as being of 'Medium Importance-Very Important'. The same level of importance was given to new and unfamiliar words. Furthermore, use of colloquial language, the level of difficulty of the material spoken, attention on exercises while listening, un-relaxed atmosphere (or the students' feeling of tension in class), unsuitable room for clear listening, relationship with the speaker, and distance of the speaker to the listener were all generally found to be of 'Medium Importance-Very Important'. This shows the students' awareness of the importance to these factors which can seriously affect the success of a listening and NT situation as discussed in 2.2.5-2.2.5.2.2 above.

On the other hand, the gender of the speaker was not found influential to listening by 52.16 % of the students, which leaves the rest of the sample arguing that it is important to listening. This divide in the answers shows that it is easier for some students to deal with the opposite gender while it is quite hard for others. This might be due to the fact that in the public high-school system in Oman, most male students are taught by male teachers and most female students by female teachers; on the other hand, in private high-schools in Oman, students are taught by different genders. These students come from different school backgrounds; thus, some are more accustomed with teachers from the opposite gender than others.

3.3.2.2 Taped Material

Since the concentration in this study is more about taking notes in live lectures rather than from tapes, there seems to be no need to peruse a discussion about the following results, for they do not relate to listening per se but rather concentrate on exercises associated with listening to taped materials. It is however interesting to note that students consider these points - related to taped material- as being of 'Medium Importance-Very Important'.

Table 3.5 - Factors Related to the Speaker in Taped Texts/Conversations

	Factors Related to the Speaker (Taped Texts/Conversations)	Completely Unimportant	Unimportant	Medium Importance	Important	Very Important
1	Unclear recordings	4.34%	4.34%	4.34%	13.04%	73.9%
2	Distractions such as background music on tape	8.7%	13.04%	30.43%	26.08%	21.73%
3	Not repeating tape enough times	4.34%	4.34%	39.31%	21.73%	30.43%
4	No face-to-face interaction with speaker on tape	13.04%	17.4%	17.4%	21.73%	30.43%
5	Non-Straightforward questions	8.7%	0%	43.5%	43.5%	4.34%
6	Not enough exercises in class	17.4%	0%	21.73%	30.43%	30.43%
7	Not enough time to read questions after listening	8.7%	0%	13.04%	17.4%	60.9%
8	Not used to/No training in listening to the English language	13.04%	0%	30.04%	34.8%	31.73%
9	Questions not organized as material appears on tape	8.7%	26.08%	13.04%	21.73%	34.8%

3.3.2.3 The Listener

Here the listener is the main focus of attention. A quick look at the percentages in the following table shows that almost all the factors investigated here were rated to be of 'Medium Importance-Very Important'. This indicates the students' awareness of how they contribute to any listening situation and the importance of what they bring with them to such an interaction. It is interesting however to note that some students found these factors 'Completely Unimportant-Unimportant' which makes us wonder why they consider LC an easy task to perform.

Table 3.6 – Factors Related to the Listener

	Factors Related to the Listener	Completely Unimportant	Unimportant	Medium Importance	Important	Very Important
1	Unknown topic/Knowledge about the topic	0%	8.7%	21.73%	34.8%	34.8%
2	Lack of attention	0%	8.7%	21.73%	30.43%	39.13%
3	Weak memory	4.34%	8.7%	17.4%	60.9%	8.7%
4	Tiredness and exhaustion	0%	8.7%	26.08%	26.08%	39.13%
5	Having interest in what is said	4.34%	13.04%	13.04%	39.13%	30.43%
6	General world knowledge	4.34%	0%	43.5%	34.8%	17.4%
7	Cultural knowledge	4.34%	21.73%	8.7%	47.8%	17.4%

3.3.2.4 Taking Notes

Answers to this set of questions were useful. All of these questions have been used in the final version of the questions of this study. The concentration here is on what the students do when taking notes while listening.

Table 3.7 – What Students do when Taking Notes while Listening

	Listening and Note Taking	Yes	No
1	Have you received training in note taking?	13.04%	86.95%
2	If you chose (Yes), do you think the training was useful to you?	13.04%	0%
3	Do you think learning note taking is useful for you in English classes?	100%	0%
4	Do you think note taking in English is the same process as that in Arabic?	39.13%	60.9%
5	Do you write every word you hear?	13.04%	86.95%
6	Do you translate what you hear to Arabic in order to note it down?	65.2%	34.8%
7	Do you need to understand what is being said to take notes?	91.30%	8.7%
8	Do you take notes in lectures delivered in Arabic?	91.30%	8.7%
9	Do you use symbols when you write your notes, e.g. & or + for 'and', and so on?	86.95%	13.04%
10	Do you review your notes immediately after lectures?	21.73%	78.26%
11	Do you add anything to your notes such as additional explanation from books?	60.9%	39.13%
12	Do you compare notes with other students?	52.17%	47.82%

The answer provided to the first question in the above table seems consistent with an earlier answer provided by some students from this group in the first pilot questionnaire, as mentioned in 3.3.1.2 above. The majority of the students who answered this questionnaire reported that they had had no training in NT. Only a few stated that they had had such training and believe it to be useful. All the students involved in this questionnaire believe that NT is a crucial skill to learn which indicates their willingness to receive training in it.

When asked about their NT techniques, the majority of students believe that NT in English is the same process as that in Arabic. But these students seem to face difficulty in selecting what to note down, for a big majority reported that they wrote down every word they hear which is impossible given the relative speed of writing versus the speed of delivery. This suggests that students exercise little discrimination in terms of selecting from what they hear. Another problem in NT relates to their need to translate what they hear into Arabic in order to note it down. A majority of students reported doing this which indicates their weak listening abilities. Almost all the students involved in this questionnaire also reported that they need to understand what is being said to take notes, that they take notes in lectures delivered in Arabic, and that they use symbols when taking notes. A majority of the

students also indicated that they do not review their notes immediately after lectures, but there is a large number of students who add information to their notes from books in order to complete them. Also, there was no big difference between the percentage of students who reported that they compare their notes with others as opposed to those who do not. All in all, it seems clear that the students regard NT in lectures as both important and difficult.

3.4 The Main Study

As mentioned above, in order to arrive at an answer to the main question of this study; namely: 'How effective are the notes that Omani EFL students take during lectures delivered in English?', which requires the investigation of the quality of students' notes, two lines of investigation were needed: a direct study of students' notes and the study of three main aspects of NT from the students' point of view. These aspects are: the purpose of NT, the methods they use to take notes, and the factors affecting NT. This means that we have two types of data: qualitative and quantitative represented in the study of the students' notes as well as the investigation of the three abovementioned NT aspects through sets of interviews and questionnaires. The final set of questions used in the interviews and questionnaires of this study were, as mentioned above, based on the findings reached in the pilot test administered for this study. Information on the three aspects under investigation was gathered over a period of eleven weeks through interviews, questionnaires, and careful examination of students' notes.

As mentioned in 3.2 above, the study was carried out in the fall semester of 2005-2006. The study commenced during the fourth week of the speaking course within which the study was administered. The reason why the study was not conducted earlier than the fourth week of the course is to give time for familiarization with the courses and the completion of the 'add and drop period' given to the students in weeks 1-3 in which they complete their registration of the courses they decide to take during the academic semester. The first three weeks were also needed to develop a relationship with the students of the two groups before observations, interviews and questionnaires were administered. The following is a summary of the data collection plan followed by an account of the method by which the data was gathered:

Table 3.8 Summary Table of Data Collection

Course Weeks	Interview Times and Topics	Questionnaire Times and Topics	Lecture Times and Topics
week 1-3			
week 4	Purpose of Note Taking		
week 5			EFL Learners' Problems
week 6	Training in Note Taking		
week 7	Note Taking Training, Preparation and Review	Note Taking Methods	
week 8			
week 9		Factors that Affect Note Taking	
week 10			
week 11			Note Taking Methods and Skills - (Experimental Group)
week 12		More on Factors that Affect Note Taking	
week 13			
week 14		Lecture Organization and Lecturer Performance. Immediately after the Final Lecture→	Speech Perception and the Brain

3.4.1 Interviews

Three different structured interviews with each student involved in this study were carried out. Each of the interviews focused on a different aspect of NT; namely, purpose of NT, training in NT, and NT preparation and notes review. This division of interview topics helped the students concentrate on each aspect of NT separately from the others and made it feasible in terms of the time spent in each interview. The setting of the interviews was formal but relaxed. As mentioned above, the pilot study helped develop some of the questions used in the three interviews of the study. They have been developed from personal reading of the literature on NT and had been piloted and rephrased appropriately before they were used. The students of both the experimental and control groups were individually interviewed three times and asked the following questions in both Arabic and English. The set of questions for each interview were written on paper with the Arabic translation appearing underneath each question. Thus, the interviews were in the form of think aloud questionnaires; the questions were handed to the students, and they were asked to think

aloud and reply. Prompts were provided to students when seen necessary. It was made clear to the students that their answers to the questions in the interviews would be used for the purpose of a Ph.D. study and that any answer they give does not affect their grade in the speaking course within which the study was administered. The students' replies were entered into a table. Students were encouraged to comment on or explain their answers after answering each of these questions; these comments if given were taken down as well.

3.4.1.1 Interview No. 1- Purpose of Note Taking

The first interview was aimed at learning about the purpose the students have in taking notes in lectures. It was administered in week four of the course. The students were asked the following questions:

- *Do you take notes in lectures?*

If the answer to the question was 'Yes' or 'Sometimes', the students were asked the following two questions:

- *Why do you take notes in lectures?*
- *How do you use the notes you take in lectures?*

If the answer to the question was 'No', the student was asked the following question:

- *Why don't you take notes in lectures?*

3.4.1.2 Interview No. 2- Training in Note Taking

The second interview aimed to investigate whether or not the students received any kind of training in NT. The interview was administered in week six of the course. The students were asked the following questions:

- *Do you think you need training in note taking?*
- *Have you ever been trained in taking notes from lectures?*
- *Have you ever been trained in using symbols and abbreviations in notes, e.g. '+' instead of 'and', '=' instead of 'the same as, or equals', and 'dept.' instead of 'department', etc.?*

3.4.1.3 Interview No. 3- Note Taking Training, Preparation and Review

The third interview was administered in week seven of the course. It consisted of the following two sets of questions:

1. The first set was aimed at learning more about questions two and three of the second interview (see above). It was asked to only those students who claimed they had training in NT. It was decided to ask these two additional questions about training in NT in this interview in order to learn more about the training these respective students claimed to have had, for the second interview yielded insufficient information on this issue. The questions asked were the following:
   - *What did the training you had in note taking involve?*
   - *Do you think the training was useful?*
2. The second set consisted of four questions: the first three were asked to all the students including those who were asked the first set in this interview, while the fourth was only asked to those students who claimed they took notes in lectures among which were some of the students who reported having had training in NT. The aim was to learn about what the students do before and after attending their lectures. The questions asked were the following:
   - *Do you prepare for all or some of your lectures?*
   - *Do you prepare for the lectures by studying the chapters your teachers ask you to study or by looking for information about the topics of the lectures in books from the library?*
   - *When you prepare for lectures, do you formulate any questions about the topics of the lectures? If so, do you write these questions down so you won't forget them?*
   - *Do you review your notes after lectures? If so, when do you usually do that- on the same day, the same week, before the next lecture, or before exams?*

3.4.2 Questionnaires

Similar to the questions asked in the interviews, the set of questions used in all but the four final questionnaires used in this study were developed from personal reading of the literature on NT and had been piloted and rephrased before they were used. It was made clear to the students that their answers to these questionnaires would be used for the purpose

of a Ph.D. study and that any answer they give does not affect their grade in the speaking course within which the study was administered. The purpose of each questionnaire was explained to the students in Arabic. Two of the questionnaires, precisely the second and the third, were designed to complement each other; they were focused on studying the factors that affect the way students take notes. The following is an account of the type of information sought in each of the questionnaires used in this study.

3.4.2.1 Questionnaire No. 1

This questionnaire, see Appendix 3, was distributed in week 7 of the course. It was designed to investigate the NT method followed by the students in lectures delivered in English. This questionnaire was administered after the first lecture in which the students' notes were collected. This questionnaire consisted of thirteen closed questions which the students were asked to answer simply by underlining one of three alternatives provided next to the questions: Always, Sometimes, or Never. Seven of the questions used in this questionnaire were developed based on personal speculation, while the other six were adopted from other research in the field of NT. Items number 7, 8, and 9 were questions suggested by Chambers and Northedge (1997: 85); the second and third in the list below of the original questions of Chambers and Northedge were rephrased to make them easier for the students to understand (see Appendix 3 for the rephrased wording of each question).

7. *Do you daydream in lectures?*
8. *Do you feel anxious about whether or not you understand what the lecturer is saying?*
9. *Do you find it easy to make sense of your notes after the lecture?*

Questions number 4 and 10 were adopted from Rowntree (1988: 144); both were also rephrased to make them clearer for students. The original questions were:

4. *Do you leave space in your notes to add further information?*
10. *Can you read your handwriting after the lecture?*

The latter question has also been addressed by Rowntree (ibid: 130) and Lewis and Reinders (2003: 76) as a major problem facing students when taking notes.

Finally, question number 13 was adopted from Heaton (1975: 18) after being rephrased again for clarity. The original question was:

13. Do you copy out notes neatly when you review them?

3.4.2.2 Questionnaire No. 2

This questionnaire, see Appendix 4, was distributed in week 9 of the course. It was designed to investigate the factors that affect the way the students take notes in lectures delivered in English. This questionnaire consisted of four questions that the students were asked to rate by putting a tick under any of the five levels of importance next to each question which ranged from 'Completely Unimportant' to 'Very Important'. The questions in this questionnaire were developed mostly from personal observations or originate in the literature dealing with the factors that affect listening and NT, discussed in 2.2.5-2.2.5.2.2 above (the same is true of the questions Questionnaire No. 3 below). One of the variables being investigated in questionnaire No.2 is based on a suggestion by Fisher and Harris (1974: 292) that subject matter has an effect on NT.

3.4.2.3 Questionnaire No. 3

This questionnaire, see Appendix 5, was distributed in week 12 of the course. It was designed to investigate more deeply the factors that affect the way the students take notes in lectures delivered in English. The questionnaire consisted of thirteen open ended questions to which the students were asked to give short answers. They were encouraged to be specific and give reasons for their answers. Two other variables investigated in this questionnaire are based on Fisher and Harris's (ibid.) suggestion; namely: that the instructor's personality and the differences in memory abilities between sexes have an effect on NT.

3.4.2.4 Questionnaire No. 4

This questionnaire, see Appendix 6, was distributed in week 14 of the course, immediately after the final lecture of the study (see 3.4.3.2.3 below). It was designed to evaluate the lecture organization and the lecturer's delivery of the material. The questionnaire consisted of sixteen True/False questions adapted from research by Brown et al. (1983) on styles of lecturing, see Rost (2002: 234-235). The results of this questionnaire were crucial to understand more about the way the students took notes in the lecture by comparing their answers to the questionnaire questions with their notes (4.3.3 below).

3.4.3 Lectures, Observations and Examination of Notes

As discussed in 2.4 above, Hartley and Cameron's (1967) investigation of the effectiveness of notes in which they assessed the amount of information taken down by students in a lecture as compared with the amount of information actually communicated in the lecture has inspired this study. Hartley and Cameron's idea of counting information units and marking the students' notes based on the presence of these in their notes is the main method of measuring the effectiveness of notes in this current study. The students' notes of two different lectures prepared and presented by the researcher were studied. The material of the lectures from which the notes were taken in this study were based on topics that relate to the units studied in the course within which the study was administered. Thus, some of the vocabulary items used in the lectures were familiar to the students, and the topics were of significance to their development in the course. In each of the lectures presented the students were told to pay attention to the information as it would be used later in the course. Also, they were told that the lectures were important for their development in the speaking course within which the study was administered. The students were further informed that the material of the lectures would be tested in order to indirectly encourage them to take notes, see below for more details. Although this might raise an ethical question concerning the need to mislead the students, it seemed quite necessary to do so for class observations strongly show that students do not tend to take notes unless directly asked to do so or seeing the urgency of doing so for future tests or assignments.

The lectures were all tape recorded. Since the students were taught separately, each of the two lectures was delivered twice - once for each group in their normal class time. They were not joined in one group to avoid the effect of breaking the normal setting for the students. It was feared that putting the groups together for the purpose of giving the lectures would disturb the groups; some students might have acted differently in the presence of new students in class which might have affected the students' behavior and rapport in the lecture with one another and with the teacher. Also, since NT in 'live' lectures is the main concern in this study, using a recording for one of the groups was not practical, for that would have presented them with a different type of input.

Each of the lectures was delivered twice by the same person. However, the two deliveries of each lecture were inevitably not completely identical. Great effort was put into

making sure the lectures presented to the students were consistent in terms of the amount of facts presented and the time spent on each item discussed from the lecture outline. This was done by making an effort not to deviate from the outline prepared for each lecture and through presenting the same lecture topic on the same day for both groups. In spite of the effort to make the two lectures the same, it was impossible to be completely consistent due to the different feedback from the two groups. Students were not encouraged to participate in the discussion of the aspects in the lectures; they merely asked for clarifications and repetition of a few aspects and details presented which brought up the simple differences in the two versions of the two lectures.

A transcript was made from the recording of both lectures of one of the groups involved in the study; the choice of which group's recording to use was made randomly. The lectures of the experimental group were chosen for this purpose. These transcripts then provided a text with which the recordings of the lectures of the control group were compared. Inconsistencies between the two recordings of the each lecture for the two different groups were noted down as will be discussed below. The transcripts from the recordings were then compared with the lecture outlines initially prepared by the lecturer in order to make sure the key points and supporting details of the outlines were discussed clearly before marking the students' notes; thus, the students were not penalized for the neglect of some points originally written in the outline during the delivery of the lecture.

The students' notes were then individually marked against the final outlines which contained the actual key words and supporting ideas the lecturer deemed important to be noted down from the lectures. Observations were made to describe what is commonly done in class; these were used in order to reach a better understanding of the quality of the students' notes when studied. An effort was therefore made so as not to make the students feel they are being observed or that they are taking part in an experiment while they were taking notes in order to collect as naturalistic data as possible.

3.4.3.1 Variables under Investigation in the Notes

Two main variables were concentrated upon in the investigation of the effectiveness of students' notes: 'good' vs. 'bad' notes and the effect of training in NT on students' notes, both of which were suggested points of research recommended by Hartley (1998: 79).

3.4.3.1.1 Good vs. Bad Notes

The effectiveness of the students' notes in terms of whether the notes are good or bad representations of the material they listened to in the lecture was studied. This was investigated through interviews with a small sample of students and lecturers to find out what they consider 'good notes' in order to establish a criterion on which to depend in the evaluation of the effectiveness of the notes taken in this study.

Also, the effectiveness of students' notes has been compared in terms of the difference between their genders in order to investigate whether or not the findings reached by (Hartley and Cameron, 1967: 31-32; Fisher and Harris, 1974: 291; and Maddox and Hoole, 1975: 22-23 among others, mentioned in 2.3.1 above, that female and male subjects take notes in different ways applies to the sample involved in this study. Such a comparison was also suggested by Howe and Godfrey (1978: 56).

3.4.3.1.2 Effect of Training in Note Taking

The effect of training in NT has been studied by evaluating and comparing the strategies (or methods) that the students used to take notes in the final lecture, after the completion of a NT workshop provided to them by the researcher, with those strategies used in the first lecture, before training in NT was provided. Notes have been examined using Hartley and Cameron's (1967) technique of dividing the lecture transcript into information units. Their technique was effective in comparing the amount and quality of notes taken with the actual information transmitted in the lecture. This technique was used by many researchers interested in such comparisons, such as Maddox and Hoole (1975) and Ngarari (1990). Absolute and relative measures have been used in studying the effectiveness of the students' notes, as suggested by Maddox and Hoole (1974: 20).

Variations in the NT methods that different students use to note down information from the same lectures have been investigated, as suggested by Ngarari (1990: 30). In addition, variations in the NT method adopted by each student has been studied in order to see the reason why one method is preferred rather than another and whether there is any change of the type of NT strategy adopted by each student of the experimental group after the NT workshop. This aspect of NT has been studied side by side with that concerning the effectiveness of students' notes in the light of the criterion of good notes set in the study.

3.4.3.2 Lectures Topics and Note Taking Workshop

The following is a description of the lectures that were presented to the two groups involved in this study: the control and experimental groups.

3.4.3.2.1 The First Lecture

This lecture was presented to the two groups in week 5 of the course. The title of this lecture was: 'Some Problems Facing Learners of English' adapted from James et al. (1979: 82-111). The topic was chosen for two main reasons: first, it related to a unit in the in-house book which is Education, and second, through a discussion with the students in the beginning of the semester about their previous education in the LC, specifically in the Intensive Course (see 3.2 above), it was obvious that they had difficulty understanding their roles as learners in the university as compared to their high-school studies. Students tended to blame the teacher for their weaknesses in the skills and their inability to handle the amount of work required at the university as opposed to high-school. It was evident that they were unprepared for university life as well as unequipped with the knowledge of how to improve their language and study skills.

The students were not directly asked to take notes but were encouraged to do so by telling them that the information of the lecture would be requested in the marked interview of the following week. This was enough to lead some to start taking notes and reminding the others to do the same. It was noticeable that by the end of the first few minutes most of the students were taking notes. At the end of the lecture, the students were asked to hand in their notes and were told that they would be examined. They were informed that the notes would not be marked and will not affect their grades in the course. The notes were photocopied then the copies were given back to the students while the originals were kept. This was explained to the students as a need to keep a reference for the future. After returning the notes, the students were given another assignment using the notes; they were asked to use the material of the lecture in the class discussion on the topic of Education also held the following week. Thus, the lecture was incorporated with both the interviews and the class discussion on the topic which are both integral parts of the speaking course as discussed in 3.2 above. During the discussion the following week, some of the students in each group were able to recall a few points mentioned in the lecture. The fact that only 'a few' points

were recalled was used to stress the importance of the activity of NT in lectures and reviewing notes after lectures. Some of the points that the two groups could not remember from the lecture were reviewed, and all the class agreed on the importance of reviewing notes before new lectures.

As mentioned in 3.4.3 above, since the lecture was presented twice –once for each group, normal and expected inconsistencies appeared in terms of the length of each lecture and the content due to the different interaction in the two groups with the lecture and the lecturer. While the lecture for the experimental group lasted 72 minutes, that for the control group lasted 60 minutes. This was due to the fact that more examples and repetitions were requested by the experimental group as opposed to the control group in which there was more interaction and very little questions asked. Another evident difference between the two lectures of the two groups was in the conclusions of the lectures. The conclusion for the control group was relaxed and focused on discussing problems encountered through writing essays or short stories as requested by the students; on the other hand, the experimental group needed much repetition of specific details that took up most of the time in the end of the lecture. See Appendix 7 for the lecture transcript.

3.4.3.2.2 Note Taking Workshop

This 2 hour workshop on NT skills and methods was presented in week 11 of the course only to the experimental group. The material used in this workshop was developed for the group by the researcher using the literature collected about NT, discussed in Chapter Two above. The feedback both groups gave during the interviews and questionnaires on the type of NT training they need was also taken into consideration when developing this workshop; however, only the experimental group was able to take part in this workshop as stated above.

Since this study took place within a speaking course that did not include a NT component, only a limited time of the course could be devoted for the purpose of training students in NT. The students were asked to take notes in this workshop which were not collected by the researcher. The students were told beforehand that these notes would not be collected. In this workshop, the following five basic issues were discussed, with exercises given on points 1, 4, and 5:

1. The NT process was discussed specifically the three stages of: comprehension of information, selection of key words, and usage of notes. Stress was put on what constitutes effective notes based on the literature. Students were also made aware of the normal but present dangers of forgetting the information in lectures after the lecture as indicated in 2.2.2.3 above.
2. What to do before, while and after lectures were discussed in detail in the form of steps backed up with reasons for each step (see 2.2.2.1-2.2.2.3 above).
3. What to write vs. what not to write down in notes were discussed in the form of lists.
4. Symbols and abbreviations used in NT and how to form them were stressed. Students were provided with a list of common symbols and abbreviations and were asked to practice making their own by shortening words or phrases of their choice or creating personal symbols.
5. The following common NT techniques in the literature were discussed and explained in graphic forms on the white-board: outline notes, linear notes, and pattern notes (or branching) (see 2.2.3.1-2.2.3.3 above). The students were encouraged to compare the four different ways of NT and choosing what they think is the best for them after discussing the advantages and disadvantages of each.

3.4.3.2.3 The Final Lecture

This lecture was presented to both control and experimental groups in week 14 of the course. The topic of the lecture was Speech Perception and the Brain, a topic related to another theme in the listening course book – Boosting Brain Power. The material of this lecture was adapted from three main sources: Chapter Two of this study, an essay in the students' in-house reading book, and the speaking course books. When the students came into the lecture hall the following key points from the lecture outline were being written on the board:

A. The Speech Chain
Linguistic Level ← Speaker's Brain
Physiological Level ← Motor Nerves+ Vocal Muscles
Acoustic Level ← Sound Waves
Physiological Level ← Sensory Nerves
Linguistic Level ← Listener's Brain

B. A diagram of the speech chain was drawn from Denes and Pinson (1963: 5)

C. Neurologists Paul Broca and Carl Wernicke
The two parts of the brain were drawn

D. Stages of Speech Perception
1. The Reception Stage
2. The Identification Stage
3. The Recoding Stage

Through observing the students' reaction to the material being written on the board, only one female student from each group started writing without the need to draw her attention to it. The students were not directly urged or asked to take notes. After a few minutes, the students were told that the material in the lecture would be tested the following week in order to indirectly encourage them to take notes. It was noticed that after being told about the potential tested, a few students started writing down the above key points and later the rest of the class was encouraged to do so. It proves more importantly the fact that students are not inclined to take notes without being asked to do so or realizing the importance of doing so for future tests or assignments.

As for the normal inconsistency in content and length between the two versions of the lecture for the two groups, roughly the same differences found between the versions of the first lecture, discussed in 3.4.3.2.1 above, were found between the versions of the final lecture. The experimental group asked for more examples and repetitions while the control group didn't. This explains the difference in lecture length between the two versions; the experimental group's lecture lasted for 61 minutes, while that of the control group lasted 54 minutes.

At the end of the lecture, the students were asked to hand in their notes and were told about the study in details. They were also informed the lecture notes would not be tested which came as a relief to most of them. It was further explained that they were misled to think of the test in order to take notes, for based on general observation of the groups, they do not usually take notes unless told to do so or told that the material would be tested – an observation they agreed with. It was also justified that if they had not been misled, many of them might have not taken notes at all. After collecting the notes, questionnaire No. 4 was handed to the students to learn about the lecture organization and presentation weakness,

which has helped assess the effectiveness of their notes. See Appendix 8 for lecture transcript.

3.5 Effect of Lectures on Interviews and Questionnaires

Since interviews and questionnaires were administered in this study alongside the two lectures presented to the two groups and the NT workshop presented to the experimental group, it is necessary to investigate whether these lectures had any effect on the students' replies to the interviews and questionnaires questions. This investigation was carried out through comparing the three lectures with the questions of both the interviews and questionnaires. The following was concluded:

1. Three Lectures vs. Interviews: No effect was found of the first lecture on any of the interviews for it covered unrelated topics to those investigated in the interviews. As for the final lecture and the NT workshop, they were presented after the three interviews were administered.
2. First Lecture vs. First Questionnaire: No effect was found of the first lecture on the first questionnaire for the first lecture did not go in depth about the specific aspects of listening and NT which were investigated in the questionnaire but merely referred to developing the students' listening skills, the problems behind having weak listening skills and solutions to help develop these skills.
3. First Lecture vs. Second Questionnaire: There might be an effect of the first lecture on two questions in the second questionnaire; namely: questions one and four:
    - How important is the lecturers' clear pronunciation of words in lectures?
    - How important is it to know something about the lecturers' background culture to be able to understand them?

The issue of clear pronunciation and the lecturers' cultural background were mentioned but not addressed in detail in the first lecture. This might have to some extent influenced the students' replies to the questionnaire questions; nonetheless, it is worth taking the students' replies into consideration, for the questionnaire merely shows the level of importance the students give to these aspects. See 4.2.2.1 and 4.2.2.4 for the discussion of the effect that might have occurred on the replies to these aspects.

4. First Lecture vs. Third Questionnaire: The following four aspects, studied in questions four, five, seven and nine, of the third questionnaire were addressed in the first lecture: losing attention in lectures, co-education, listening to lectures in high school vs. listening to lectures at the university, and the effect of speed of delivery on comprehension. These aspects were briefly discussed in the lecture which might have affected the students' replies to the questionnaire questions. See 4.2.3.4, 4.2.3.5, 4.2.3.7 and 4.2.3.9 for the discussion of the effect that might have occurred on the replies to these aspects.
5. NT Workshop vs. Third Questionnaire: Two aspects from the NT workshop presented to the experimental group were questioned in questions six and 12 of the third questionnaire: the preferable place to sit in class and dealing with new words. See 4.2.3.6 and 4.2.3.12 for the discussion of the effect that might have occurred on the replies to these aspects.
6. Final Lecture vs. Final Questionnaire: No effect was found of the final lecture on the final questionnaire for the lecture's content is unrelated to the questionnaire.

3.6 Marking Criteria for Lecture Notes

As mentioned in the introduction to this chapter, the main concern of this study is the investigation of the effectiveness (in terms of accuracy) of the notes that Omani EFL university students take during lectures delivered in English. In other words, the main issue being investigated is whether the students' notes of the lectures they attend represent an acceptable and useful account of the lecture material.

The study that inspired this investigation, as mentioned in 2.4 above, is that of Hartley and Cameron (1967). The marking criteria that they used in their study was in principle quite simple; they counted the number of 'informational units' in the notes, as discussed in 2.3.1 above, giving one mark for each unit of information that appeared in the notes in whatever form, e.g. a word, or an abbreviated reference. The principle of the marking technique is that the number of ideas recorded in students' notes successfully reflected the perception and understanding of the material of the lectures they attended; thus, the quality of the notes taken down in lectures depended on the number of important ideas noted down

from the lectures. The main marking criteria used in this current study depends on this principle of counting information units (or important ideas).

3.6.1 Validating the Marking Technique

To validate the marking technique used in this study, nine university teachers were selected to study and mark notes taken by a student randomly selected from the sample of this study. Most of the judges belonged to the same institution in which the study was undertaken, Sultan Qaboos University; thus, they were familiar with the students' background and study habits. The judges were provided with an explanation of the study and of Hartley and Cameron's marking criteria which was suggested as the marking method to follow (see Appendix 9 for the complete explanation); however, the judges were given freedom to deviate from this marking technique and asked to comment on it or propose changes if needed. A shortened version of the lecture outline was provided for them to use when marking the notes to make their marking experience easier. This entailed marking the set of notes the judges were provided with beforehand in order to make sure all the information units in them appear in their shortened version of the lecture outline. The main interest in the judges' feedback was more on their comments on the marking criteria than on the marks they gave the notes; this is why a shortened version of the lecture outline was believed to be enough to guide them through the notes.

Only five of the judges approached provided feedback; this was received in the form of ten-fifteen minute interviews in which the judges commented about how they marked the notes. If the judges did not comment on the objectivity of the marking method, they were asked to do so. The following is an account of the judges' comments together with the marks they gave for the set of notes they were given:

1. Judge Number 1: This judge used the marking criteria proposed to mark the notes and found it 'quite an objective method' to mark notes. She argued that the lecture outline provided, against which she marked the notes, was very useful in guiding her through the notes. In spite of the positive feedback that she gave, she expressed reservations concerning one aspect of the process of counting the information units in the notes. She argued that in some instances the student wrote only half of the information unit leaving out details present in the lecture outline. This reservation can not be considered a

drawback of the marking technique for it is natural that the student picks out only what he believes to be essential, such as key words, as mentioned in 2.2 above. This judge also commented that she would have benefited from the presence of the number of information units in the lecture outline instead of having to count them herself (see point 5 below for an opposite point of view) which was not provided for fear of disturbing the marking process. The mark she gave for the notes is 35 out of 61; the first mark representing the number of information units found in the notes, while the second is the total of the information units found in the lecture outline. She graded the notes as a 'good' account of the lecture material.

2. Judge Number 2: This judge again used the marking criteria proposed to mark the notes. She found the marking technique 'very objective' and the lecture outline very useful in guiding her through the notes. The mark she gave for the notes is 36 information units in the notes out of the 59 information units she found in the lecture outline. When comparing the marks of this judge with those given by the previous judge, it is clear that they are very close. However, when asked to grade the notes, this judge graded the notes as a 'fair' reproduction of the lecture material; she argued that although the notes seemed organized, she did not think they were helpful for future use.
3. Judge Number 3: This judge altered the marking criteria proposed to mark the notes. She found the marking technique 'only a little objective' because of the lecture outline which she considered confusing, for she could not decide what constitutes an information unit when going through it. This judge simply counted the information units she found in the student's notes that appear in the lecture outline. In other words, she did not count the number of information units in the lecture outline but merely compared the ideas she found in the notes to those in the outline. She argued that she found no point in counting the units in the outline as long as the information she was picking up from the student's notes was not his own but provided in the lecture (see point 4 below for a somewhat similar view). She reported finding 45 information units in the notes, which represented the mark she gave for the notes. She commented that in general she found the marking technique useful for the purpose of marking notes and graded the notes as a 'very good' reproduction of the material in the lecture outline.

4. Judge Number 4: This judge used the marking criteria proposed to mark the notes but instead of giving one point for every information unit found in the student's notes, as suggested to her, she gave half points for 10 information units arguing that they were incomplete. She found the marking technique 'objective' and the lecture outline very useful in guiding her through the notes. However, she suggested marking the notes without paying attention to the number of information units in the lecture outline for ease and speed. The mark she gave for the notes is 27.5 information units in the notes out of 71 information units she found in the lecture outline. To rectify the use of half points by this judge, adding the missing half points to the total of information units found in the student's notes, brings the total to 32.5 information units which is a very close mark to those given by judges 1 and 2. When asked to grade the notes, this judge graded the notes as a 'fair' reproduction of the lecture material.
5. Judge Number 5: This judge again used the marking criteria proposed to mark the notes. He found the marking technique 'very objective' and the lecture outline crucial for the process of marking the notes. However, he expressed his preference of having had the lecture transcript instead of the outline in order to find the information units himself rather than having them clearly listed in the lecture outline. This judge did not take into consideration the visual aid presented to the students, which was attached to the lecture outline he was given. He argued that he did this in order to avoid counting an information unit twice, for he felt that some appeared in the notes twice, once in the form of words and again in the form of drawings. The mark he gave for the notes is 18 information units in the notes out of the 60 information units he found in the lecture outline. When comparing the marks of this judge with those given by the previous ones, it is clear that the total of the information units he found in the lecture outline is close to those found by judges 1 and 2. He argued that he found the lecture difficult which might have been the reason for the student's notes which he considered a 'poor' reproduction of the lecture material.

The judges were finally asked to suggest any other way to mark lecture notes; they all agreed that 'there is no better way to mark notes but to count the ideas they contain' which is the basic principle behind Hartley and Cameron's technique. This, in addition to the fact that the marks that judges 1, 2, and 4 gave are close indicated that this marking technique is

in fact very useful and objective in marking students' lecture notes. Also, the fact that three judges, specifically 1, 2, and 5, gave close totals for the number of information units they found in the lecture outline confirmed that the outline presented a useful guideline to follow when marking student's notes. The feedback the judges provided encouraged no alterations in the marking technique originally decided upon to mark the students' notes in this study. It only confirmed the validity of the marking technique that Hartley and Cameron suggested to mark lecture notes. Despite the different views of the judges about the importance of using the lecture outline as a guideline when marking the notes, the lecture outlines proved to be useful when marking the students' notes, for they provided a list of the important information units of the lectures.

The information units in the lecture outlines were counted by counting the number of thought groups in each heading and subheading. For example, in the introduction part of the outline of lecture 2 (see Appendix 12), the second subheading contained one thought group; therefore, it was counted as one information unit: 'The brain consists of two parts: left and right'. By comparison, in the same outline, subheading 5 contained the following nine units:

> In the middle of 19th century / Paul Broca and Carl Wernicke / (who were neurologists: / 'neuro-' for 'nerve'/, '-ology' for 'science' / and '-ists' for 'persons who study a science') / support Gall's theory of localization /and found: damage to certain areas in the brain /(particularly the left part) correlates with loss of certain linguistic abilities

Before marking, the number of information units for each heading and subheading in the two lecture outlines used in marking the students notes was checked by judge number 5, see above, to ensure that the total of information units for each outline was correctly counted by the researcher. The judge found nine more information units in the outline of the first lecture and seven more information units in the outline of the final lecture. Since the difference between the numbers of information units found by this judge and those found by the researcher was not high, this simple discrepancy was not taken into consideration. Therefore, the researcher's original counting of the information units in the two outlines was used as the basis against which the totals of the information units the students wrote down were compared. The total of information units found by the researcher in the first and final lectures are 152 and 182 units respectively. See Appendices 12 and 13 for the outlines.

3.6.2 The Marking Chart

In order to organize the marking process and reach more informative results, a chart was devised to mark each set of notes. The chart, see Appendix 10, consisted of six categories which represent different aspects of the notes. These aspects are:

1. Type of Notes: to record whether the notes were outline, linear, or pattern notes or a mixture of these NT techniques.
2. Visual Aids: to record whether or not the student copied the visual aids from the board.
3. Abbreviations and Symbols: to record the type and number of abbreviations and symbols used in the notes.
4. Words: to count the number of information units appearing in the form of single words.
5. Phrases: to count the number of information units appearing in the form of phrases (or incomplete sentences).
6. Sentences: to count the number of information units appearing in the form of complete sentences, i.e. containing the basic units of a sentence: a subject, a verb and a complement.

Thus, while some students choose to write whole sentences to express one or more information units, others choose phrases or words. For example, some students might write: 'Language is located in the left hemisphere of the brain', which is a complete sentence taken down from the lecture, while others might only write: 'left hemisphere' to remind themselves of this information, and other students might merely write the word 'left'.

Each set of notes was given a mark representing the total number of information units found in them compared to the number of information units of the respective lecture outline with which they were compared; thus, aspects number 4, 5, and 6 above represent the actual measures used to count these information units. On the other hand, the other aspects, i.e. 1, 2, and 3, provided a picture of how the notes were laid out and organized; therefore, they did not add to the total mark of the notes but merely completed the impression of what they contain. Nevertheless, aspect 3; namely: abbreviations and symbols, was on some occasions an exception. When an abbreviation or symbol appeared as a separate information unit, it was awarded one point; however, when it appeared in the middle of a phrase or sentence or connected between words, without giving an independent idea, the type and number of abbreviations or symbols were merely made note of. For example, if the abbreviation

'vocab', for 'vocabulary', appears alone and is connected by arrows or lines to other words or phrases, this abbreviation is awarded one point; otherwise, when appearing as part of a phrase or sentence, the point is awarded to that whole phrase or sentence considered in this case as an individual information unit. This is in conformity with Hartley and Cameron's marking technique who awarded points to abbreviations and symbols when acting as information units, as explained in 2.3.1 above. This means that each unit in the students' notes, be that a word, a phrase, a sentence, an abbreviation, or a symbol, was awarded a point as long as these units represented or referred to independent ideas or information units appearing in the lecture outlines. Information units written or explained in the students' own words were also awarded one point; on the other hand, those that were wrongly written, vague, or not contained in the lecture outline were disregarded. As for the visual aids presented on the board, these were not counted as part of the information units sought in the students' notes, for they did not represent 'notes' but rather visuals copied from the board which involves a mechanical skill rather than the active skill of listening and reproducing the material in written form which is the essence of the NT activity.

3.7 Problems in Study Administration

While it did not constitute a problem as such, it could be noted that in the administration of this study, a great deal of time was spent on making the lecture transcripts, noting the inconsistencies between the two versions of each lecture, and comparing the lecture transcripts with the lecture outlines prepared for the two lectures.

CHAPTER FOUR
RESULTS AND DISCUSSION

This study aims to investigate the effectiveness of the notes that Omani EFL students take during lectures delivered in English. In order to study the quality of the students' notes, two lines of investigations were needed:

1. the study of three main aspects of NT from the students' point of view; namely:
    a. the purpose of NT,
    b. the methods they use to take notes,
    c. the factors affecting NT.
2. the direct study of students' notes of two different lectures.

This investigation provided both qualitative and quantitative data. The following is a detailed description of the results reached in the investigation of the abovementioned two points of interest in the order in which they appear above which is relatively close to the order in which they were investigated (see Table 3.8 above). The first line of investigation was dealt with through interviews and questionnaires, while the second concentrated on the study and marking of the students' notes against the outline prepared for the lectures.

4.1 Interviews

The following are the findings of the three interviews carried out in this study:

4.1.1 Purpose of Note Taking

This was the first interview in the study. As discussed in 3.4.1.1 above, the students were asked this set of questions in order to learn about whether or not they take notes and why they choose to take or not to take notes. Results for each question asked in this interview are indicated below:

4.1.1.1 Take Notes in Lectures?

The results of this question indicated that 71.42% of the students claimed to take notes in 'some lectures', while 25% claimed to take notes in 'all lectures', and only 1 student out

of the 28 involved in the study claimed to 'take no notes in any lecture'. The students were next asked about the reason for their answers.

4.1.1.2 Why Take Notes and Why Not Take Notes?

4.1.1.2.1 Do Take Notes

Only the 27 students who reported taking notes in 'some' or 'all' of the lectures they attend, are included in this part of the discussion. The following table is an account of the reasons these students gave for taking notes, accompanied with the number of students who reported each reason and the percentage they represent in the whole sample included here:

Table 4.1 - Do Take Notes

	Control Group 1	Experimental Group 2	Total
1 Useful Information	10	10	20 74.1
2 New Information	5	8	13 48.1
3 New Vocabulary	2	4	6 22.2
4 Main and Minor Ideas	1	7	8 29.6
5 Ease of later Use	1	3	4 14.8
6 Understand Lecture	4	2	6 22.2
7 Lecture not prepared	0	1	1 3.7
8 When asked	1	0	1 3.7
Column Total	14 51.9	13 48.1	27 100.0

As shown in the above table, the sample gave the following eight reasons for NT:

- 74.1% take notes to write useful information,
- 48.1% take notes to write new information,
- 22.2% take notes to write new vocabulary items,
- 29.6% take notes to write main and minor ideas,
- 14.8% take notes to review or use for exams and assignments,
- 22.2% take notes to understand the lecture,
- 3.7 % take notes when the lecture is not prepared,
- 3.7% take notes when asked to do so.

Most of these answers are consistent with what Ngarari (1990: 8) reports as the most common functions or purposes of NT found in the literature. She reports that the most common purposes are: (1) as an aid to retention, (2) for subsequent revision, (3) as an external storage mechanism, (4) as an aid to concentration, and (5) as a basis for written work. Also, Leathers (1982) reports in his investigation two of the purposes the sample of this current study stated; namely: notes help to provide a record for future use and revision, and notes aid concentration and LC. In addition, two of the purposes mentioned by the sample in the current study were reported by Badger et al. (2001: 409-411). In their study, nine out of the 18 students involved reported writing down key and important points, and two of these students reported writing useful information for future essays and examinations. Sutherland et al. (2002: 384) also report that both the native as well as the non-native speakers of English in their study reported that they take down important information for examinations.

The fact that the two groups involved in this study were able to give reasons for NT readily and without any prompting from the researcher shows their awareness of the importance of NT. This does not agree with Ngarari's (1990: 8) argument that when students are asked about why they take notes, they usually find it hard to give a straight answer. She reports Howe's (1986) explanation of the inability of some students to know why notes are taken arguing that most students think that taking notes is simply the right thing to do during any lecture. In such cases, students take notes without having a 'conscious purpose' which affects the outcome of NT since having a specific purpose for NT is the only means of

achieving the specific end of taking notes. These answers agree with replies reported in other studies which investigate the purpose of NT.

4.1.1.2.2 Do Not Take Notes

The student who claimed to take no notes was asked to explain why. She argued that she is not used to taking notes, that she 'cannot concentrate on listening while writing', that the textbook is a more reliable source of information than lectures and that she doesn't like writing. She was observed throughout the course and found not to take notes at all. This students' answer conforms to what Peters (1972: 276) found when studying the effect of NT on listening, that some students find NT to impede LC in lectures, see 2.2.5.1.3 above. Also, more recently, Badger et al. (2001: 410) report an international student facing the same difficulty in NT in lectures arguing that he has no time to take notes thus only concentrates on what the lecturers say (discussed in 2.3.2 above).

4.1.1.3 How are Notes Used?

The 27 students who reported taking notes in 'some' or 'all' the lectures they attend, gave the following answers as to how they use their notes:

a. All 27 students said that they review the notes before exams.
b. 25.92% of them also added that they review notes before the next lecture.
c. 14.81% also claimed that they compare their notes with those taken by others.
d. 11.11% also claimed they use notes as sources of information for other lectures.

All these answers indicate that students are aware of the importance of taking notes for exam and assignment purposes. Also, the third answer indicates that the percentage of students who gave it make the effort to compare their notes with those of other students in order to complete their accounts of the key points and details of the lectures. Thus, it is clear that even though most of these students have not had training in NT, they are aware of the importance of reviewing and comparing notes after lectures, something stressed in many study skills books. The table below gives a clearer picture of the students' answers:

Table 4.2 - How are Notes Used?

	Control Group	Experimental Group	Total
	1	2	
1 Review before Exams	14	13	27 100.0
2 Review before Lecture	4	3	7 25.9
3 In other Lectures	2	1	3 11.1
4 Compare Information	2	2	4 14.8
Column Total	14 51.9	13 48.1	27 100.0

4.1.2 Training in Note Taking

The second interview consisted of three questions that investigated whether or not the students received training in NT.

4.1.2.1 Need Training in Note Taking?

13 students in the experimental group, including the student who stated that she does not take notes, said they need training in NT, while 12 out of the 14 students in the control group stated they need training; the three remaining students in this group claimed to know enough about how to take notes.

4.1.2.2 Had Training in Taking Notes?

Only four students in the control group and three from the experimental group claimed they had some training in NT. This training was provided in the Intensive Courses (IELP) in the Language Center, which was the programme these students had taken before joining the course in which this study was administered.

Training in NT is an important part of the Intensive programme; the fact that out of a sample of 28 students, representing the two groups in this study, only seven students had received some form of training in NT was quite unexpected especially in view of the fact that NT is given some attention in this curriculum. It is evident that it was neglected by some of the teachers of the programme. The students in this study had different teachers, and yet most of these teachers had not paid attention to training the students the basics of NT provided in the listening and NT textbook distributed to them. This fact came as a surprise to the course coordinator of the IELP programme when he was shown these findings.

4.1.2.3 Trained in Using Symbols and Abbreviations?

The two students in the experimental group who were introduced to using symbols and abbreviations in their notes, mentioned above, stated that they use these methods when taking notes. On the other hand, only one student in the control group reported using symbols and abbreviations; all the other students reported that they do not use them.

4.1.3 Note Taking Training, Preparation and Review

The third interview investigated the following three aspects related to notes and yielded the following results:

4.1.3.1 More on Note Taking Training

Two questions were asked to the students who reported they had received training in NT to further investigate what the training had involved and whether the students thought it had been useful; see 3.4.1.3 for the full wording of the questions. Only two of the four students from the control group who had had previous training agreed that the training had been useful; one had been trained to use symbols and introduced to NT methods, while the other had been trained to write down main and supporting ideas. Both students stated that this training was provided in only two lectures during the whole course and therefore was not enough. The other two students in the group stated that they had only once been asked to take notes from a recorded passage without any guidance from their lecturers. These four students felt they needed more training in NT. As for the three students of the experimental

group, one reported that she had received no guidance from her lecturer but had been given the opportunity to take notes once a week from a recorded passage, which was enough training for her, as she maintained, and the other two students believed they needed more training. One of these two students reported that he had been introduced to using symbols, and the other had been introduced to using abbreviations, but neither student had received training in using these symbols and abbreviations.

4.1.3.2 Preparations to Take Notes

The second set of questions aimed at investigating the students' study habits, i.e. what they do before and after attending lectures. They were asked about whether they prepare for 'all' or only 'some' of their lectures, what they study when they prepare for their lectures, and whether or not they formulate questions about the lecture topic and write these down. The following table shows the answers to these questions accompanied by the distribution of the replies students from both the experimental and control groups gave to each question:

Table 4.3 - Preparation to Take Notes

	Prepare for Some Lectures	Prepare for All Lectures	Study Chapter	Go to Library	Formulate Questions	Write Questions
Experimental Students	9	5	14	6	9	5
Control Students	12	2	14	3	10	6

It is clear from the above that students tend to study for only 'some' of their lectures. All the students reported they study the chapter assigned by the teacher and only a few seek more information from the library, as shown above. It seems that students of the experimental group are keener on using the library than those of the control group. As for question formulation when they prepare for lectures, it seems that quite a large number of students, precisely 67.85% from both groups, formulate questions when they read which indicates that they put much effort to understand the material assigned for the coming lecture and that they attend most lectures with some idea of what the lecture is about. All five of the students in the experimental group who claimed to write down the questions they formulate said they 'always' write the questions that come to their minds. As for the control

group, three students said they 'always' write the questions, while the other three said they only write some of what they think of.

4.1.3.3 Reviewing Notes

The 27 students who reported taking notes were asked whether they review their notes after the lectures and asked to specify when they do so. The student who reported that she did not take notes said that depending on the course she studied, she reviews her colleagues' notes before exams; her answer was included in the percentages and table below. In general, the students who do take notes stated that they review their notes at the following different times; some students gave more than two answers:

a. 92.85% of the students claimed to review the notes before tests,
b. 64.28% claimed to review in the same week,
c. 28.57% stated they review on the same day,
d. 17.85% stated they review before the next lecture.

Table 4.4 - Reviewing Notes

		Control Group	Experimental Group	Total
		1	2	
Same Day	1	5	3	8 28.6
Same Week	2	8	10	18 64.3
Before Lecture	3	2	3	5 17.9
Before Exam	4	13	13	26 92.9
	Column Total	14 50.0	14 50.0	28 100.0

These results are simply based on the students' claims, which may not be valid means of learning about their revision habits if we consider the possibility that these claims might

not be true. Ngarari (1990: 15) states that in Hartley and Cameron's (1967) study, which pays attention to revision as a crucial function of NT, they found that although most students claim to use their notes for revision, evidence suggests that they 'do not in fact look back at lecture notes as much as they would have you believe'. Ngarari argues that the fact that Hartley and Cameron's discovered that 19 out of the 22 students involved in the study had not gone through their notes confirms the suggestion that most students do not make use of their notes for revision purposes even though research has shown that 'revising from notes can improve learning', as she quotes Howe (1970).

4.2 Questionnaires

All of the students involved in this study filled in the four questionnaires distributed except the student who reported that she does not take notes, as explained in 4.1.1.2.2 above, who answered only the questions related to listening rather than NT. The following is a description of the results reached in each:

4.2.1 Note Taking Method

This questionnaire was designed to investigate the NT method used by the students in lectures delivered in English as explained in 3.4.2.1 above. The following is based on an analysis of the replies given to the thirteen questions of this questionnaire. Notice that the 'non-applicable' case in the tables below was given by the student who reported that she does not take notes in any lecture. See Appendix 3 for complete wording of each question.

4.2.1.1 Know Lecture Topics before Lectures

Students were asked whether they know the lecture topics before attending lectures based on an observation that on some occasions students seem lost in the first part of the lectures when they learn about the lecture topics. 60.71 % of the students reported that they always know the topics of lectures before attending them; on the other hand, 39.28 % reported only sometimes knowing the topic before lectures. See the table below for a clear picture of the students' reports:

Table 4.5 - Know Lecture Topics before Lectures

Count

		Know Topics		
		Always	Sometimes	Total
Students' Code	Control Group	8	6	14
	Experimental Group	9	5	14
Total		17	11	28

4.2.1.2 Use Symbols and Abbreviations when Taking Notes

Using symbols and abbreviations was known by the researcher to have been taught to students in the preparatory course, yet it was uncertain whether or not the students used them. 75% of the students reported that they use symbols and abbreviations on 'some occasions' when they take notes which indicates their awareness of the importance of such methods to save time while writing down the lecture information. On the other hand, only 14.28 % stated that they 'always' use symbols and abbreviations, while only 10.71 % claimed 'never' to use them. The fact that the majority of the students in the groups reported sometimes using symbols and abbreviation, despite the fact that only three students from the whole sample, as mentioned in 4.1.2.3 above, were introduced to using symbols and abbreviation in the training they received, shows the students' awareness of the usefulness and importance of writing in a shortened version to save time when taking notes.

Table 4.6 - Use Symbols and Abbreviations when Taking Notes

Count

		Use Symbols And Abbreviations			
		Always	Sometimes	Never	Total
Students' Code	Control Group	0	13	1	14
	Experimental Group	4	8	2	14
Total		4	21	3	28

4.2.1.3 Writing Every Word

Students were asked whether or not they try to write every word they hear in lectures. 64.28 % of the students reported 'sometimes' to write every word they hear which indicates that students do not filter what they listen to and choose from the information what is relevant to them for future use. One student from the experimental group showed that he/she

had a more serious problem by stating that he/she 'always' writes every word he/she hears which indicates his/her inability to select the useful information and disregard the less relevant in all the lectures he/she attends. In contrast, nine students, 32.14 % of the sample, two from the control and seven from the experimental group, stated that they 'never' write down every word they hear, which shows that they practice some kind of a selection from the information before writing it down. These answers also indicate the samples' need for training in NT, for good notes are records of only the key ideas and important details of lectures rather than attempts to take down verbatim records of what lecturers say which Maddox (1963: 101-102) refers to as an 'impossible' task (discussed in 2.2.3.2 above). Below is a table of the students' answers to the respective question:

Table 4.7 - Writing Every Word

Count

		Write Every Word			
		Always	Sometimes	Never	Total
Students' Code	Control Group	1	11	2	14
	Experimental Group	0	7	7	14
Total		1	18	9	28

4.2.1.4 Leaving Space in Notes for Further Additions

This question was adopted from Rowntree (1988: 144). It was rephrased in order to make it easier for the students to understand. The most common answer given to this question was provided by 50 % of the students who reported 'never' leaving space when taking notes. On the other hand nine students, 32.14 % of the sample, stated that they only 'sometimes' leave space in notes while taking them. In addition, two students from each group reported 'always' leaving space while taking notes which shows their awareness of the importance of this space for future additional notes. See 2.2.4.2 above for Adkins and McKean's (1983: 8-10) advice on using the space in notes; such advice has obviously not been given to these students. See the table below:

Table 4.8 - Leaving Space in Notes for Further Additions

Count

		Leave Space				
		Always	Sometimes	Never	Non Applicable	Total
Students' Code	Control Group	2	3	9	0	14
	Experimental Group	2	6	5	1	14
Total		4	9	14	1	28

4.2.1.5 Translating Lecture Information into Arabic

Personal observations of the cases when students ask for the meaning of some words from the lecture in Arabic brought up this query: whether or not students need to translate the lecture information into Arabic in order to write it down. The answer to this question was as follows:

Table 4.9 - Translating Lecture Information into Arabic

Count

		Translate to Arabic				
		Always	Sometimes	Never	Non Applicable	Total
Students' Code	Control Group	3	6	5	0	14
	Experimental Group	1	9	3	1	14
Total		4	15	8	1	28

The fact that 55.55 % of the 27 students who take notes do 'sometimes' translate into Arabic before taking notes and 14.81 % 'always' translate into Arabic indicates the students' need of their mother tongue to facilitate NT in English lectures. Through observations of the students involved in this study, as well as other Omani students observed during the years of teaching the same speaking course within which this study was administered, the influence of Arabic on the students' comprehension of and participation in lectures in English is quite evident. For the students involved in this study in particular, the influence of Arabic also manifested itself in class discussions in spite of the fact that students were asked to speak only in English. Only 29.62% of the students claimed 'never' to translate.

When studying the students' notes, it was found that ten students, four from the control group and six from the experimental group, used Arabic words or phrases in their notes to

translate English words or phrases. When comparing these students' notes to their replies to this question, three students reported that they 'never' translate but did so in their notes, another three reported that they 'always' translate, and four reported that they 'sometimes' translate. See Appendix 15 for an example of the use of Arabic in one of the students' notes.

4.2.1.6 Take Notes without Understanding Lecture

When the students were asked about whether they can take notes without understanding what is being said, they gave the following answers:

Table 4.10 – Take Notes without Understanding Lecture

Count

		Take Notes without Understanding				
		Always	Sometimes	Never	Non Applicable	Total
Students' Code	Control Group	1	2	11	0	14
	Experimental Group	0	3	10	1	14
Total		1	5	21	1	28

Only 18.51 % of the students claimed to 'sometimes' take notes without understanding the lecture material. The type of notes these students take would clearly be incomplete and disorganized, but the fact that they do try to take notes even when comprehension is poor shows that an effort is made to capture what is being said in written form with the hope to understand it later. Also, one student from the sample reported 'always' taking notes without understanding which is a surprising answer, for the first stage for successful NT is the successful comprehension of the message that is received, as discussed in 2.2.2 above. Thus, the notes this student takes down fail to serve any purpose. On the other hand, 77.77 % of the sample said that they 'never' take notes without understanding what the lecturers are saying which is a good indication considering the difficulties students face when comprehending lectures.

4.2.1.7 Daydreaming in Lectures

This question was raised and suggested by Chambers and Northedge (1997: 85). The following table indicates the answers each of the two groups gave to this question:

Table 4.11 - Daydreaming in Lectures

Count

		Daydream			
		Always	Sometimes	Never	Total
Students' Code	Control Group	0	13	1	14
	Experimental Group	2	10	2	14
Total		2	23	3	28

These replies clearly indicate the students' awareness of their inability to be completely attentive all throughout lectures. The percentage of the students who said that they daydream in only 'some' of the lecture time is 82.142 % which is quite high compared with that of the students who 'always' or 'never' daydream; 10.71 % claimed 'never' to daydream, and only 7. 14 % claimed to 'always' daydream. The fact that most of the students claimed that they do not 'always' daydream but that it only occurs in certain occasions indicates that majority of the sample make an effort to paying attention in lectures for successful LC and NT, as discussed in 2.2.5.2.2 above.

4.2.1.8 Anxiety Caused by Difficulty in Understanding Lecturer

When asked about whether they feel anxious in occasions when they find it difficult to understand the lecturers, which is another question suggested by Chambers and Northedge (ibid.), the students gave the following replies:

Table 4.12 - Anxiety Caused by Difficulty in Understanding Lecturer

Count

		Feel Anxious			
		Always	Sometimes	Never	Total
Students' Code	Control Group	7	5	2	14
	Experimental Group	8	5	1	14
Total		15	10	3	28

It is clear that anxiety is an issue that demands some consideration. It may be the result of many factors interacting together, such as fatigue, inability to catch up with the lecturers, unfamiliarity with the lecture topic, etc. To some extent, this anxiety is normal and expected,

considering the fact that the sample studied is EFL students. 53.57 % of the students reported 'always' feeling anxious, which means that these students are still struggling with their LC skill and study habits. This is a high percentage especially taking into consideration that the students are usually given the lecture topics in advance and are provided with material to prepare for lectures in the Language Center. Thus, even with familiarity with the classroom situation, the lecturer, the topic and their colleagues, students find it difficult to ask their lecturers for clarifications or repetitions of difficult points. The new environment in which they are studying can be one of the reasons for their insecurity in lectures, as will be discussed in 4.2.3.5 below. 35.71 % said they feel anxious only on 'some occasions', which is normal in any type of lecture, and only 10.71 % claimed 'never' to let anxiety affect them, which reflects their control of and familiarity with the lecture material.

4.2.1.9 Making Sense of Notes after Lectures

Here, the students were asked the third question chosen for investigation from the suggestions given by Chambers and Northedge (ibid.). The students' replies to whether or not they find it easy to make sense of their notes after lectures were as follows:

Table 4.13 - Making Sense of Notes after Lectures

Count

		Make Sense of Notes			
		Always	Sometimes	Non Applicable	Total
Students' Code	Control Group	7	7	0	14
	Experimental Group	7	6	1	14
Total		14	13	1	28

The fact that 48.14% of the students reported that they 'sometimes' find it hard to make sense of their notes after lectures indicates their need for training in NT and developing the ability to write quickly and clearly. In contrast, 14 students in total, 51.85% of the sample, equally distributed between the two groups, stated that they 'always' find making sense of their notes easy.

4.2.1.10 Reading Handwriting after Lectures

This is the second question adopted from Rowntree (1988: 144). Illegible handwriting is one of the reasons students report to prevent them from making use of their notes after lectures (ibid: 130). Although the note taker is writing for himself, not for others, he should be able to understand his own handwriting to make full use of his notes. Most of the sample involved in this study appear to be aware of the importance of this factor, for 75 % of the students stated that they 'always' find it easy to read their handwriting after lectures which indicates that they make an effort to write clearly while listening to lectures. By comparison, five students all from the experimental group, accounting for 17.85 % of the sample, reported that they only 'sometimes' find it possible to read their handwriting which indicates their need for further training in NT at a high speed and clear handwriting. One student from the control group stated that he/she can 'never' read his/her handwriting after the lectures. This cannot be taken literally for a few words or expressions can be legible even in the worst notes, let alone notes taken and review by the same individual; hence, the student's claim can be taken as a reflection of his/her anxiety towards NT in general and his/her handwriting in particular. Lewis and Reinders (2003: 75-76) give two reasons for students' inability to read their own handwriting after lectures: students take notes quickly and never find enough time to go over the notes until just before tests. This might be the case for some of the students in this sample. The following table shows the results the students gave:

Table 4.14 - Reading Handwriting after Lectures

Count

		Can Read Handwriting				
		Always	Sometimes	Never	Non Applicable	Total
Students' Code	Control Group	13	0	1	0	14
	Experimental Group	8	5	0	1	14
Total		21	5	1	1	28

4.2.1.11 Adding Information to Notes after Lectures

The most common answer provided was given by 60.71 % of the students, accounting for 17 students, most of whom from the control group, who reported 'never' to add information to their lecture notes. Another ten students, 35.71 % of the sample, indicated that they only 'sometimes' add further information to notes. The fact that a high percentage

of students do not add to their notes after lectures shows their ignorance of this important step (see 2.2.2.3 above). The table below shows the results in detail:

Table 4.15 - Adding Information to Notes after Lectures

Count

		Add Information to Notes			
		Sometimes	Never	Non Applicable	Total
Students' Code	Control Group	3	11	0	14
	Experimental Group	7	6	1	14
Total		10	17	1	28

4.2.1.12 Comparing Notes after Lectures

When the students were asked whether they compare their notes with those taken by their colleagues, the students gave the following answers:

Table 4.16 - Comparing Notes after Lectures

Count

		Compare Notes				
		Always	Sometimes	Never	Non Applicable	Total
Students' Code	Control Group	1	5	8	0	14
	Experimental Group	1	6	6	1	14
Total		2	11	14	1	28

Most of the students, 50 % of the sample, indicated that they 'never' compare their notes with those of other students after lectures. This means that these students either feel confident that their notes are complete or simply find no time to complete them by comparing their notes with their colleagues'. In contrast, 39.28 % of the students reported 'sometimes' comparing notes, and one student form each group stated that they 'always' compared notes. The fact that there are cases when students compare notes suggests that they find it hard to capture all the information in the lecture and seek to complete their notes with the help of their colleagues, which is a good study skill. This might also suggest that students compare notes to improve their NT techniques.

4.2.1.13 Rewriting Notes Neatly after Lectures

The students were asked this question, which was adopted from Heaton (1975: 18) after being rephrased, in order to learn about how they deal with their notes after lectures. The students gave the following answers:

Table 4.17 - Rewriting Notes Neatly after Lectures

Count

		Rewrite Notes Neatly				
		Always	Sometimes	Never	Non Applicable	Total
Students' Code	Control Group	1	10	3	0	14
	Experimental Group	1	5	7	1	14
Total		2	15	10	1	28

15 students, equaling 53.57 % of the sample, stated that they only 'sometimes' rewrite their notes neatly, and two students, one from each group, indicated that they 'always' rewrite their notes after lectures. In contrast, ten students, 35.71 %, reported that they 'never' rewrite their notes after lectures. The fact that some students do rewrite their notes after lectures in a neat fashion indicates that they review their notes after lectures with the aim of putting them in a more readable form for future use. This gives the students the chance to review the notes which helps retaining the information in them and complete them by recalling the details given in the lectures.

4.2.2 Factors Affecting Note Taking

This questionnaire, as explained in 3.4.2.2 above, consisted of four questions that the students were asked to rate by putting a tick under any of five levels of importance next to each question which ranged from 'completely unimportant' to 'very important'. Of interest in this questionnaire was to test whether or not subject matter has an effect on NT - a suggested line of investigation proposed by Fisher and Harris (1974: 292). This was studied through the second and third questions in this questionnaire. The students gave the following answers to the four questions under investigation:

4.2.2.1 Clear Pronunciation

12 students from the control group and 11 from the experimental group rated clear pronunciation as a 'very important' factor that affects their listening in the lecture. Only one student in the control group and three in the experimental group found it 'important'; and only one student from the control group found it of 'medium importance'. In general, this indicates that clear pronunciation is a crucial factor for the students taking into consideration that we are talking about EFL students. As discussed in 3.5 above, it might appear that the first lecture might have had an effect on the students' answers to this question. However, clear pronunciation can never be identified as secondary to comprehension; thus, the first lecture could have had only a slight effect in making this factor stand out rather than convince the students of its importance.

Table 4.18 – Clear Pronunciation

		Clear Pronunciation			Total
		Very Important	Important	Medium Importance	
Students' Code	Control Group	12	1	1	14
	Experimental Group	11	3	0	14
Total		23	4	1	28

4.2.2.2 Background Knowledge about Lecture Topic

Four students in the control group and six in the experimental group rated it as 'very important', while seven from the former group and five from the latter rated it as 'important' and three students from each group rated it as having 'medium importance'. Again, most of the answers are within the range of 'very important - important'; thus, the answers given here suggest that having background knowledge about lectures before attending them is essential to guarantee the understanding of the material presented. This also indicates the students' awareness of the importance of preparing for the lectures or having some knowledge about the topic in order to facilitate both LC and NT, as discussed in 2.1.1 and 2.2.2.1 above. See the table below for a clearer picture:

Table 4.19 - Background Knowledge about Lecture Topic

		Background Knowledge			
		Very Important	Important	Medium Importance	Total
Students' Code	Control Group	4	7	3	14
	Experimental Group	6	5	3	14
Total		10	12	6	28

4.2.2.3 Interest in Lecture Topic

Interest in lecture topic was found 'very important' by only three students in the control group as opposed to seven students in the experimental group, nine students in the control group and only four in the experimental group found it 'important', and two students in the control group opposed to three in the experimental group found it of 'medium importance'. These results also range from 'very important - important' which shows the students' awareness of the importance of having an interest in the topic of lectures in order to comprehend them and take notes. This agrees with Ngarari's (1990: 34) argument that the content of a lecture has an effect on NT; she states that students take very few notes or no notes at all if the content of a lecture is of little value to them.

This factor together with the previous, i.e. having background knowledge about the lecture topic, show that subject matter has an effect on NT. Fisher and Harris's (1974: 292) question therefore proves to be valid and applicable to the subjects of this study taking into consideration that they are EFL learners of English. The table below gives a clearer picture of the results:

Table 4.20 – Interest in Lecture Topic

		Interest in Topics			
		Very Important	Important	Medium Importance	Total
Students' Code	Control Group	3	9	2	14
	Experimental Group	7	4	3	14
Total		10	13	5	28

4.2.2.4 Lecturers' Background Culture

Only two students from the experimental group rated this factor as 'very important' for their understanding of the lectures they attend, while it was found of 'medium importance' by eight students in the control group as apposed to only four in the experimental group. On the other hand, five students in the former group and six in the latter rated it as 'unimportant', while one student from the control group and two from the experimental group rated it as 'completely unimportant'. This means that 50% of the students find this factor generally important as contrasted with the other 50% who find it generally unimportant. As for the effect of the first lecture given to the two groups, as discussed in 3.5 and 4.2.2.1 above, it appears that the lecture has not greatly affected the students' replies to this question, for 50% of the students found this factor unimportant which indicates their own viewpoint rather than what was implied in the lecture about the importance of knowing the lecturers' background culture in order to understand them.

Table 4.21 – Lecturers' Background Culture

		Lecturers' Background				
		Very Important	Medium Importance	Unimportant	Completely Unimportant	Total
Students' Code	Control Group	0	8	5	1	14
	Experimental Group	2	4	6	2	14
Total		2	12	11	3	28

4.2.3 More on Factors Affecting Note Taking

This questionnaire was designed to learn more about the factors that affect the way the students take notes in lectures delivered in English. Although the students were instructed to give specific answers or reasons for their answers in this questionnaire, some simply gave a one word answer without any clarification. This questionnaire, as in the case of the previous two, was given to the students to fill in at home so they were not rushed or observed while working on in. The following is a discussion of the results of the thirteen open ended questions of this questionnaire:

4.2.3.1 Lecturers' "Loud Voice"

The students were asked if they prefer lecturers who deliver their lectures using loud voice. Some students gave more than two answers to this question depending on their interpretation of the term 'loud'; some understood it to mean 'clear' voice, while others understood it to mean 'high' or 'deafening'. This different interpretation of the term was expected when wording the question.

The table below shows seven different answers (or reason) for supporting or opposing the lecturer's use of loud voice. The seven rows below show that 28 answers support loud voice for different reasons, while only five give opposing arguments. The students who support the lecturer's use of loud voice argue that it helps concentration, increases interest, and helps them understand the lecture better. Also, two students from the control group mentioned that loud voice helps students with hearing problems. These students did not clearly state that they had hearing problems themselves but pointed out that students with hearing problems need the lecturer to deliver the lecture in a loud voice. In general, the students' replies show their awareness of the importance of auditory acuity in lectures. On the other hand, the students who oppose the use of loud voice argue that they prefer clear rather than loud voice, that the lecturer's loud voice gets in the way of understanding the lecture, and that it shows his disrespect. These insightful answers clearly indicate that students are aware of the seriousness of the effect of the lecturer as a factor that helps or hinders the comprehension and rapport in lectures.

Table 4.22 – Lecturers' Loud Voice

	Control Group	Experimental Group	Total
	1	2	
1 Helps Concentration	7 21.2	7 21.2	14 42.4
2 Help Students with Hearing problems	2 6.1	0 .0	2 6.1
3 Increases Interest I	1 3.0	2 6.1	3 9.1
4 Prefer Clear Rather Than Loud	2 6.1	0 .0	2 6.1
5 Loud Voice Helps understand	2 6.1	7 21.2	9 27.3
6 Loud Voice not Help understand	2 6.1	0 .0	2 6.1
7 Loud Voice Shows Teachers' disrespect	1 3.0	0 .0	1 3.0
Column Total	17 51.5	16 48.5	33 100.0

4.2.3.2 Ease of Taking Notes and Answering Questions while Listening

When asked about whether they find it easy to do more than one thing at the same time while listening, such as taking notes or answering questions, the students gave 11 different replies, for they were allowed to give as many answers as they like and explain their answers if they could. The rows in the table below show that 16 answers state that it is easy to do more than one thing at the same time, while another 16 state that it is hard to manage different activities simultaneously while listening. Some of the students support their answers with reasons as to why they find it easy or hard to manage different activities at the same time; others specify the type of activities they find easy or hard to do concurrently. This shows the students' awareness of their listening problems during lectures.

Table 4.23 - Ease of Taking Notes and Answering Questions while Listening

	Control Group 1	Experimental Group 2	Total
1 Yes, Give No Reason	4 12.5	1 3.1	5 15.6
2 Yes, When topic interesting	1 3.1	0 .0	1 3.1
3 Yes, Only when prepared	0 .0	2 6.3	2 6.3
4 Yes, If Subject is Easy	2 6.3	2 6.3	4 12.5
5 Yes, NT helps take Details/give answers	2 6.3	0 .0	2 6.3
6 Yes, Answering is easy	0 .0	2 6.3	2 6.3
7 No, both Interrupt Listening	3 9.4	5 15.6	8 25.0
8 No, Slow Writers	0 .0	3 9.4	3 9.4
9 No, NT interrupts Listening	1 3.1	2 6.3	3 9.4
10 No, answering Interrupts Listening	1 3.1	0 .0	1 3.1
11 No, NT Interrupts Answering Questions	0 .0	1 3.1	1 3.1
Column Total	14 43.8	18 56.3	32 100.0

The fact that many of the replies suggested that it is difficult to do more than one thing at the same time agrees with what Tabberer (1987: 101-103) reported that poor students find the three tasks of listening, watching and writing difficult to do, discussed in 2.2.5.2.1 above.

4.2.3.3 Losing Interest in Lectures

The students were asked about what makes them lose interest in lectures. They gave the following 12 different answers; some students provided more than one answer:

Table 4.24 - Losing Interest in Lectures

	Control Group	Experimental Group	Total
	1	2	
1 Topic of Lecture	6 14.3	5 11.9	11 26.2
2 Difficulty of Topic And Information	3 7.1	2 4.8	5 11.9
3 Teaching Style	4 9.5	8 19.0	12 28.6
4 Lack of Teachers' Interest	1 2.4	0 .0	1 2.4
5 Irrelevant Information	1 2.4	0 .0	1 2.4
6 No Encouragement by Teacher	0 .0	1 2.4	1 2.4
7 Teachers' Difficult Accents	0 .0	1 2.4	1 2.4
8 Students Causing Disturbance	1 2.4	1 2.4	2 4.8
9 No Discussion	2 4.8	0 .0	2 4.8
10 Personal Fatigue or Illness	3 7.1	0 .0	3 7.1
11 No Preparation of Lecture	1 2.4	0 .0	1 2.4
12 Daydreaming	1 2.4	1 2.4	2 4.8

Column Total	23 54.8	19 45.2	42 100.0

The answers given to this question can be classified into three main categories:

1. The Lecture: 11 students, 39.28% of the sample, state that the topic of the lecture is the main reason why they lose interest in the lecture. Five students indicate that the difficulty of the topic and the information in the lecture is the reason why they lose interest in the lecture. One other student argues that irrelevant information in the lecture can make him/her lose interest.
2. The Lecturer: The most common of the answers given in the table above are expressed in the first three rows. 12 students, 42.85% of the sample, owe losing interest in the lecture to the lecturers' teaching style. Other reasons related to the lecturer were expressed by the students. One student from the control group stated that lack of lecturers' interest in the lecture makes him/her lose his/her interest in following the lectures' discussion. Another student from the experimental group indicated that he/she finds no encouragement from the lecturer to take interest in the lecture. And another student from the same group argued that the lecturers' accent is difficult to understand which makes him/her lose interest in the lecture altogether. Two students from the control group argued that no discussion is initiated in class by the teacher which makes them lose interest.
3. The Student: Three students from the control group argued that personal fatigue or illness is one of the reasons why they lose interest in the lecture. One student from each group also think that daydreaming is the cause of their loss of interest. Also, one student from each group stated that the disturbance caused by students in class causes them to lose interest in the lecture. One student from the control group indicates that he/she loses interest in the lecture when he/she is not prepared for the lecture.

The students' answers are understandable here taking into consideration that these three causes of loss of interest are among the most basic and effective factors that influence a listening situation as discussed in 2.2.5-2.2.5.2.2 above. In general, most of the causes the students gave for losing interest in lectures are related to the lectures and the lecturers.

4.2.3.4 Fading Attention

The students were asked about what makes their attention fade in the lecture. They gave the following 16 different replies:

Table 4.25 – Fading Attention

	Control Group	Experimental Group	Total
	1	2	
1 Lectures' Topics	1 2.6	1 2.6	2 5.3
2 Thinking about Point Not Understood	0 .0	3 7.9	3 7.9
3 Teaching Style	1 2.6	1 2.6	2 5.3
4 Lecturers' Voice	1 2.6	2 5.3	3 7.9
5 Irrelevant Information	4 10.5	0 .0	4 10.5
6 No use of Transition Signs	0 .0	1 2.6	1 2.6
7 No Face-to-Face Contact with Teacher	1 2.6	0 .0	1 2.6
8 Students' Causing Disturbance	1 2.6	3 7.9	4 10.5
9 Long Lectures	0 .0	1 2.6	1 2.6
10 Personal Fatigue or Illness	1 2.6	0 .0	1 2.6
11 No Preparation of Lecture	0 .0	3 7.9	3 7.9
12 Daydreaming	5 13.2	4 10.5	9 23.7

13	1	0	1
Not Enough Examples	2.6	.0	2.6
14	0	1	1
Too Much Information	.0	2.6	2.6
15	1	0	1
Not Taking Notes	2.6	.0	2.6
16	1	0	1
Repetition of Information	2.6	.0	2.6
Column Total	18 47.4	20 52.6	38 100.0

Here again, the answers can be classified into the three main categories given to the previous question:

1. The Lecture: four students from the control group argued that the presence of irrelevant information in the lecture is one of the causes that make them lose their attention during the lecture. As for other reasons given, one student from each group argued that losing attention is due to the topics of the lectures. Also, one student from the control group argued that the lack of enough examples in the lecture is the reason why he/she loses attention. Another student from the group argued that too much repetition of information is the cause for attention loss. As for the experimental group, one student stated that the absence of transition signals is the reason why his/her attention fades, while another student from the group stated that he/she loses attention when there is too much information in the lecture, and another argued that he/she loses attention in long lectures. These diverse replies indicate the students' knowledge of the factors that affect their attention in lectures, as discussed in 2.2.5.2.2 above.
2. The Lecturer: one student from the control group and two from the experimental group attribute losing attention in lectures to the lecturers' voice. Also, teaching style was found by a student from each group to be the reason for loss of attention. In addition, one student from the control group stated that having no face-to-face contact with the lecturer causes loss of attention. This might happen when the lecturer reads his notes rather than delivers them, sits or stands too far away from the students, or keeps walking

around in the lecture hall without maintaining eye contact with the students. These replies show the students' awareness of the factors that lecturer brings to the classroom situation, as discussed in 2.2.5.1- 2.2.5.1.3 above.

3. The Student: Daydreaming is thought by nine students to be the reason they lose attention in lectures. This issue was addressed in 4.2.1.7 above, where the majority of the sample stated that they daydream in 'some' lectures, showing that maintaining attention is a factor they are struggling with. Also, disturbance caused by students in class is another reason one student from the control group and three others from the experimental group lose attention. Three students from the experimental group stated that they lose attention when they think about points they could not understand in the lecture; this stresses the importance of comprehensible input, as stated in 2.2.5.1.2 above, and the importance of paying attention in lectures, as discussed in 2.2.5.2.2 above. In addition, another three students from the same group argued that they lose attention when they do not prepare for their lectures, which agrees with what is stated in this respect in 2.2.2.1 above. And finally, one student from the control group attributes loss of attention to personal fatigue or illness, while another from the same group states that not taking notes during the lectures causes loss of attention. These replies recap the discussion of the importance of being physically prepared for lectures and taking notes in lectures to maintain attention (see 2.2.1.1 and 2.2.2.1 above).

The answers above indicate that most of blame for losing attention in lectures is put on the student. 21 replies, equaling 75 % of the students, gave reasons related to their own performance in lectures. On the other hand, 11 replies, accounting for 39.28% of the students, relate their loss of attention to the lectures they listen to, while six other students, 21.42% of the sample, indicated that lecturers are the reasons why they loose their attention in lectures.

As for the effect of the first lecture on the students' replies to this question, as mentioned in 3.5 above, the aspect under investigation here was merely mentioned in the lecture as a possible reason for weak listening skills rather than discussed in detail. Therefore, the fact that the students gave 16 different reasons for loss of attention in lectures indicates that the lecture itself had very little effect on their replies.

4.2.3.5 The Effect of Co-Education

The students were asked whether or not they feel relaxed in a co-education setting and whether such a setting affects the way they behave in class, such as taking notes or asking questions. Some students gave more than one reply or explanation for their opinion. The following is an account of five different replies provided by the students categorized in terms of their gender:

Table 4.26 – Effect of Co-Education

	Male	Female	
	1	2	
1 No Negative Effect	3	5	8 28.6
2 Prevents Asking Questions	1	6	7 25.0
3 Affects Participation Negatively	4	8	12 42.9
4 Encourages Participation	2	0	2 7.1
5 Not Relaxed	2	1	3 10.7
Column Total	11 39.3	17 60.7	28 100.0

The effect of co-education on the students' performance and interaction is very noticeable in Omani university classes. This is due to the fact that through high school, most Omani students attend single-education classes where male students are taught by male teachers and female students are taught by female teachers. The sample involved had all had single-education and face the same challenge with respect to communicating with the teacher and other students in class. It is noticeable from the replies the students gave in the table above that only eight students, equaling 28.57% of the students, three male and five female, find no negative effect in co-education. On the other hand, 22 other replies, 78.57% of the sample, find co-education problematic for three main reasons:

1. Prevents Asking Question: one male student as opposed to six female students find studying in a co-education environment prevents them from asking questions. This might be due to the fact that these students do not feel confident about asking questions in the presence of the opposite gender.
2. Affects Participation Negatively: four male students as opposed to eight female students find participation in a co-education setting difficult for they are not used to talking to the lecturer in such a context.
3. No Relaxed Setting: two male students as opposed to one female student simply find the setting of co-education not relaxed but do not specify why.

The replies above show that female students (88.23% of the female sample) find co-education a more uncomfortable education setting than their male counterparts (63.63% of male sample). Only two male students argued that co-education encourages participation, while none of the female students feel co-education encourages them to participate in class. In the first lecture, co-education was mentioned as one of the reasons why students have difficulty coping with the new environment in the university as compared to their high school life. Nevertheless, the effect of the first lecture on the students' replies to this question was again weak here, for some students expressed a positive attitude towards co-education rather than a negative one.

4.2.3.6 Where to Sit in Class

When students were asked to choose among three alternatives-front row, middle row, or back row- as to where they prefer to sit in class, some of them gave more than one reply. Most of the replies indicated that students generally prefer to sit either in the front or middle rows in class. 13 students, four from the control and nine from the experimental group, argued that they prefer sitting in the front rows; in addition, 12 students, seven from the control and five from the experimental group, stated they prefer the middle rows. On the other hand, five students, three from the control and two from the experimental group, stated they prefer the back rows in class. And finally, in spite of the fact that this option was not given to them as an alternative to choose from, two students from the control group stated there is no difference between the three rows. It is clear that most of the students prefer sitting in the front and middle rows which is what Maddox (1963: 100-101), Barrass (1984:

44) and McIlroy (2003: 29-30) among others advise as discussed in 2.2.5.2.2 above. The advice given to the experimental group in the NT workshop to sit as close as possible to lecturers might be the reason why nine students from the group reported that they prefer sitting in the front row, five reported preferring the middle row, and none stated there was no difference. The following table gives the students' replies to this question:

Table 4.27- Where to Sit in Class

		Control Group	Experimental Group	Total
		1	2	
Front Row	1	4 12.5	9 28.1	13 40.6
Middle Row	2	7 21.9	5 15.6	12 37.5
Back Row	3	3 9.4	2 6.3	5 15.6
No Difference	4	2 6.3	0 .0	2 6.3
	Column Total	16 50.0	16 50.0	32 100.0

4.2.3.7 Listening in High School Versus Listening at University

The students were asked whether they find a difference between the way they used to listen in lessons in high school and the way they listen in lectures at the university. They gave the five answers in the table below:

Table 4.28 - Listening in High School Versus Listening at University

Count

	Difference Between Listening in School and University					
	More information in University Classes	Arabic was used in High School	More Participation and Attention Paid in High School	No Difference	There is Difference But No Details Given	Total
Students' Control Group	5	1	4	4	0	14
Experimental Group	10	1	1	1	1	14
Total	15	2	5	5	1	28

53.75% of the sample agrees that there is more information communicated in university classrooms than there was in high school classes. Also, one of the common complaints that students make in class discussions is that Arabic was frequently used in high school English classes which is why they feel unprepared to speak only in English in classes at the university, but surprisingly only two students in this sample mentioned this as a difference between high school and university classes. Five students, 17.85% of the sample, also argued that they paid more attention in high school classes than university classes. Other students, also 17.85%, argued that there is no difference between the way they used to listen in high school and the way they listen at the university. Only one student argued that he/she finds no difference between listening in high school and university but gives no further details as to why he/she holds this view.

As for the effect of the first lecture on the students' replies to this question, it appears that the students used two of the points raised in the first lecture as their replies; namely: that in university lectures the material is more demanding and that Arabic is used in high school English classes. Nonetheless, other students gave different feedback which shows that the first lecture had only a simple effect on the students' replies to this item.

4.2.3.8 Fatigue in Lectures

Fatigue is an important factor that affects listening and NT in lectures. The students were asked to state when they usually felt tired in lectures and were given the alternative to choose among three choices: Beginning, Middle, or End of lectures. Most of the students gave more than one reply, and three students added a fourth alternative shown in the fourth

row in the table below. Most of the students, 67.85 % of the sample, reported that they feel tired at the end of lectures. This reply agrees with Henning's (1966: 35-36), Rivers' (1971: 125), Ur's (1984:20) and Goh's (1997: 365) observation that listeners feel tired after prolonged listening situations, for the activities of listening to, watching, and interacting with the speaker use up energy and cause tiredness. In addition, 17.85 % of the students reported feeling tired in the middle of lectures, and 10.71 % of the students feel tired in the beginning of lectures. The former two replies seem more reasonable than the latter, especially taking into consideration that lectures at SQU are one hour and forty minutes each and the fact that they are exerting a lot of effort in listening in L2.

Another 10.71 % of the sample stated that they feel tired depending on whether the lectures are interesting or not. The first three replies emphasize the effect of fatigue on comprehension; as for the last reply, the fact that three students added this alternative to the ones provided for them in the question gives emphasis to the effect of having interest in what is said on LC, as discussed in 2.2.5.2.2 above. The following table gives a clearer picture of the replies:

Table 4.29 – Fatigue in Lectures

		Control Group	Experimental Group	Total
		1	2	
Beginning	1	3	0	3
		10.0	.0	10.0
Middle	2	2	3	5
		6.7	10.0	16.7
End	3	9	10	19
		30.0	33.3	63.3
Depends on Whether Lecture is Interesting	4	1	2	3
		3.3	6.7	10.0
	Column Total	15	15	30
		50.0	50.0	100.0

4.2.3.9 The Effect of Speed on Lecture Comprehension

The students were asked whether the speed of delivery of the lectures affects the comprehension of the lecture material. The most common answer provided was given by 71.42 % of the students who reported that high speed of lecture delivery makes it difficult to concentrate in lectures. This shows their need of a slow-normal speed of lecture delivery in order to comprehend lectures. But deciding the slow-normal speech rate is not a simple matter taking into consideration that what is slow to someone might be of high speed to another. The normal speech rate suggested in the literature ranges from 125-200 words per minute. Salimbene (1985: 95) states that lecturers speak at around 125 words a minute, and Maddox (1963: 101-102) states that the speed of delivery of most speakers is about 130 words a minute; however, Peters (1972: 276-277) gives a higher rate stating that the range of normal speech rate is between 125-200 words per minute, and the highest rate is 300 words per minute (see 2.2.5.1.3 above).

10.71% of the sample indicated that high speed does have an effect but do not explain the nature of that effect. One student showed that high speed affects NT negatively, while another student simply indicated that British and American lecturers speak fast. In contrast, two students stated that there is no negative effect of high speed as long as the pronunciation is clear, and another two students indicated that slow speed makes lectures dull. The fact that high speed of delivery was found by the majority of the sample to have a negative effect on LC agrees with what Chastain (1971) argues, reported by Paulston and Bruder (1976: 128), that in LC courses the teacher should start by giving students simplified language at a slow speed and gradually increase the speed rate as they become proficient listeners.

The first lecture might have affected the students' replies to this question; the issue of high speed of delivery was mentioned in the first lecture as one of the factors that affects listening and comprehending lectures. However, the discussion did not go into details about the nature of this effect which is something the students did in their replies. Therefore, if there was an effect of the first lecture on their replies to this point, it is a simple one.

Table 4.30 - The Effect of Speed on Lecture Comprehension

	Control Group	Experimental Group	Total
	1	2	
1 High Speed Makes it Difficult to Concentrate	10 34.5	10 34.5	20 69.0
2 High Speed Affects NT Negatively	0 .0	1 3.4	1 3.4
3 No Negative Effect if Pronunciation is clear	2 6.9	0 .0	2 6.9
4 Slow Speed Makes Lecture Boring	1 3.4	1 3.4	2 6.9
5 British and Americans Speak Fast	1 3.4	0 .0	1 3.4
6 High Speed has Effect But no Explanation	1 3.4	2 6.9	3 10.3
Column Total	15 51.7	14 48.3	29 100.0

4.2.3.10 Male Versus Female Lecturers

The students were asked whether they prefer male or female lecturers which is a question based on research suggested by Fisher and Harris's (1974: 292) that the instructor's gender affects NT. This is another factor produced by co-education, for students are not accustomed to being taught by the opposite gender in high school. Results are as follows:

Table 4.31 – Genders' Preference of Male Versus Female Lecturers

Count

		Prefer Female or Male Teachers			
		Female	Male	No Difference	Total
Gender	Male	4	1	6	11
	Female	2	7	8	17
Total		6	8	14	28

50 % of the students claimed they find no difference between male and female lecturers, while others preferred the opposite sex as indicated by the following: 25 % of the female students prefer male lecturers, while 7.14 % others prefer female lecturers; and 14.28% of the male students prefer female lecturers and only 3.57% prefer male lecturers. In general, 60.71% of the whole sample prefer female lecturers, but it is evident that the students are more interested in being taught by the opposite gender. This might be because they had been lectured by the same gender in all their school education and are seeking change. The table below shows that most of the students in the experimental group find no difference between male and female teachers, while most of those in the control group prefer one gender rather than the other; see also 2.2.5.1.1.

Table 4.32 – Groups' Preference of Male Versus Female Lecturers

Count

		Prefer Female or Male Teachers			
		Female	Male	No Difference	Total
Students' Code	Control Group	5	5	4	14
	Experimental Group	1	3	10	14
Total		6	8	14	28

4.2.3.11 Clear Pronunciation Versus Slow Speed of Delivery

The students were asked whether they find clear pronunciation more important than slow speed of delivery. They gave the following 6 different answers:

Table 4.33 - Clear Pronunciation Versus Slow Speed of Delivery

Count

		Is Clear Pronunciation Important than Slow Speed						
		No, No Details Given	Yes, Clear Pronunciation Important even in Slow Speed	Yes, Arabic Speakers are Clear	Loose Concentration at Slow Speed	Find it Difficult in All Cases	Depends on Degree of Clarity and Speed	Total
Students' Code	Control Group	2	8	1	1	1	1	14
	Experimental Group	2	11	0	0	0	1	14
Total		4	19	1	1	1	2	28

The most important finding here is that 67.85% of the students argue that clear pronunciation is an important requirement for them even at slow speed which means that slow speed of delivery alone is not enough for them to understand what is being said.

Another interesting answer was provided by one student from the control group arguing that he/she loses concentration at slow speed thus preferring normal-high speed in order to be able to connect what is being said easily. Also, another student from the same group argued that he/she finds it difficult in all cases; this means he/she finds listening to English difficult even at slow speed with clear pronunciation. In contrast, another student said that clear pronunciation is more important than slow speed of delivery; therefore, he/she would not have a problem comprehending clear English at a high speed.

On the other hand, three answers provided by the students were very puzzling and hard to explain. Four students, two from each group, give a one word answer to the respective question by saying 'No', which is quite confusing. This brought attention to the fact that this last part of the question (the example explanation) was not properly worded or was a little confusing; thus, it is safe to say that the answer given by these four students is puzzling and has therefore been disregarded completely. Another puzzling answer was that provided by a student from the control group, who stated that Arabic speakers are clearer than English speakers; this is quite a difficult answer to explain since it is to be expected that one would understand speakers of his/her mother tongue better than those of a foreign language. Two other students, one from each group, expressed a view that indicated their inability to understand the question in hand; they mentioned that their comprehension depends on the 'degree' of clarity and speed of what is said.

4.2.3.12 Dealing with New Words

When asked about how they deal with new words when taking notes, the students gave the following answers:

Table 4.34 – Dealing with New Words

Count

		Write Words You Do not Know			
		Yes, Most Words then Look them up	Only Some	Try but Sometimes Fail	Total
Students' Code	Control Group	10	4	0	14
	Experimental Group	11	2	1	14
Total		21	6	1	28

75 % of the students reported writing most of the words they do not know then looking them up in the dictionary, while 21.42 % claimed they do so only in some occasions, and only one student from the experimental group reported trying to write such words but sometimes failing to get the correct meaning. The students' failure to find the right word in the dictionary after the lectures is reasonable taking into consideration that the students do not know the spelling of the new words. If the spelling of the new words is not provided by the lecturers, the students depend on the pronunciation of these words and write them as close as possible to the way they are pronounced. This means that on some occasions, the wrong words are looked up in the dictionary based on the attempted spelling, as the last student reported.

The NT workshop appears to have affected the students' replies on this aspect. Most of the students gave a positive reply stating that they write down new words even when they do not know what they mean and then look them up in their dictionaries; nonetheless, this answer was not verified in their notes for most of the terms introduced to them in the final lecture, which included a number of new terms and concepts, were unrecorded (see 4.3.3 for examples of students' cases).

4.2.3.13 Taking Notes in Arabic Versus Taking Notes in English

The students were asked about whether or not they take notes in lectures delivered in Arabic and whether it is different from the method they use to take notes in lectures delivered in English. The students gave the following answers most of which are supported with reasons:

Table 4.35 - Taking Notes in Arabic Versus Taking Notes in English

	Control Group 1	Experimental Group 2	Total
1 Yes	10 18.9	12 22.6	22 41.5
2 No Need in Arabic	4 7.5	2 3.8	6 11.3
3 No Difference	4 7.5	5 9.4	9 17.0
4 NT is Different No Explanation	0 .0	3 5.7	3 5.7
5 In Arabic-Write Everything	2 3.8	1 1.9	3 5.7
6 In Arabic- Key Words of new Information	2 3.8	3 5.7	5 9.4
7 Take More Notes in English	1 1.9	1 1.9	2 3.8
8 NT in Arabic is Easier	1 1.9	1 1.9	2 3.8
9 Write in Arabic then Translate	1 1.9	0 .0	1 1.9
Column Total	25 47.2	28 52.8	53 100.0

The first two rows indicate the answers all the students gave to the first part of this question, i.e. whether they take notes in lectures delivered in Arabic. 78.57% of the students reported that they did, while 21.42 % reported that they do not see a need for taking notes in lectures delivered in Arabic. There is a slight difference between the control and experimental groups with respect to these answers as seen in the table above. As for the second question, i.e. whether there is a difference between the method used to take notes from lectures delivered in Arabic as opposed to those delivered in English, the students gave seven different answers indicated in the rows 3-9 in the table. Two of their answers were

unspecific while others were to the point. The specific answers represent two different points of view that were not backed by reasons: nine students, representing 32.14% of the sample, reported no difference between the two occasions of NT, while three others indicated a difference but did not provide a precise explanation of what it was. The rest of the answers were more defined; they can be classified into the following two categories:

1. NT in Arabic: As far as NT in Arabic is concerned, the students reported that:
    a. In Arabic they write everything the lecturers say; only three students reported doing so. This means that they use little judgment as to what to choose from what is said, which means they do not select what they think serves their NT purpose, as discussed in 2.2 above.
    b. In Arabic they write only key words of new information. Here the students gave an opposite reply to the previous one. Five students, two from the control group and three from the experimental group, gave this answer which reflects their ability, contrary to the students of the previous answer, to make judgments as to what to choose from the flow of speech.
    c. NT in Arabic is easier; two students, one from each group, indicated that they find NT in Arabic easier. Unfortunately, they do not give any explanation as to why this is so which indirectly indicates that they have tried NT in both Arabic and English and have found NT in Arabic less challenging than that in English.
    d. They write their notes in Arabic and then translate them into English. Only one student from the control group reported doing so; such a method seems quite difficult since it involves translating the information of the lecture twice: first, from English into Arabic, then the opposite direction. This method is also difficult when the students' level in LC is weak, for when they do not fully comprehend what is said, they would translate the information taken down in a wrong way and therefore alter it. This reply seems quite unrealistic taking into consideration that the student is instructed in English at a normal-high speed of delivery. Also, it is seems impractical and unnecessary to translate into Arabic from English then translate back into English. The main question arising here is why does the student translate from English into Arabic and back when he could write immediately in English and save time? Arabic is clearly used to save time in the lecture while

writing the notes; it seems easier and quicker, from the students' point of view, to write an Arabic translation of a word than to write the English word itself.

2. NT in English: Students reported taking more notes in English than they do in Arabic. Two students, one from each group, reported this answer. This shows that the students find English lectures more challenging than Arabic ones; thus, they see a need for taking notes in English lectures.

4.2.4 Final Lecture Evaluation

This Questionnaire (No. 4) was designed to learn about the students' points of view about the lecture organization and the lecturer's delivery of the final lecture in which the students took notes in this study. It consisted of sixteen Yes/No questions that the students were instructed to answer in class immediately after the lecture.

Generally speaking, from the answers to the 16 questions of this questionnaire, it is evident that the students of the control group had less control over the material of the lecture than those of the experimental group which is something that will be investigated in the next section, 4.3, where we discuss the notes the students took in the respective lecture. The following is a discussion of the students' answers to the questions of this questionnaire:

4.2.4.1 Disorganized Lecture

When asked about whether or not the lecturer organized the lecture clearly, the groups gave the same answers. Only two students from each group, a total of 14.28%, stated that they did not think the lecturer organized the lecture clearly as opposed to 12 students from each group who stated that they had no problem with the lecture organization. The fact that only a small percentage of students from both groups felt the lecture was disorganized indicates that there was no serious problem with lecture organization; therefore, one can assume that the two groups were able to follow the lecture (see 2.2.5.1.2 for the importance of this factor for NT in lectures). The table below shows the answers the students of both groups gave to this question:

Table 4.36 – Disorganized Lecture

Count

		Students' Code		
		Control Group	Experimental Group	Total
Not Organize Lecture	Yes	2	2	4
	No	12	12	24
Total		14	14	28

4.2.4.2 Not Stressing Major Points

The students were asked whether the major points in the lecture were stressed clearly or not; only one student from the control group stated that the lecturer failed to clearly stress the major points. Thus, generally speaking, the main points were clear to all the students of both groups. See the table below for the replies to this question:

Table 4.37 - Not Stressing Major Points

Count

		Students' Code		
		Control Group	Experimental Group	Total
Not Stress Major Points	Yes	1		1
	No	13	14	27
Total		14	14	28

4.2.4.3 Not Providing Examples

As far as providing examples is concerned, four students from the control group and one from the experimental group stated that the lecturer did not provide examples to support the points discussed in the lecture. The fact that more students from the control group, 28.57% of the group, did not recognize the examples provided in the lecture indicates their inability to identify such points which might be due to their weak listening skills or even the lack of training they had in NT. See Appendices 8 and 12 for the examples used in the lecture.

Table 4.38 - Not Providing Examples

Count

		Students' Code		
		Control Group	Experimental Group	Total
No Examples	Yes	4	1	5
	No	10	13	23
Total		14	14	28

4.2.4.4 Not Starting and Finishing on Time

When asked whether they think the lecturer started and finished on time, the students of the experimental group stated that they had no problem at all with this respect. On the other hand, six students from the control group, representing 42.85% of the group, stated that they had problems with the starting and or finishing time of the lecture. This was an unexpected answer taking into consideration that the lecturer made sure that both versions of the lecture, i.e. that presented to both the experimental and control groups, started and finished on time and that the same introduction and conclusion were given to both groups based on the lecture outline used for the two versions (see Appendix 12). The answer provided by the control group might be due to the students' need for more information in the beginning and end of the lecture, their weak listening skills, or their weak NT skills especially that they did not have the NT workshop provided to the experimental group. See the table below:

Table 4.39 - Not Starting and Finishing on Time

Count

		Students' Code		
		Control Group	Experimental Group	Total
Not Start/Finish on Time	Yes	6		6
	No	8	14	22
Total		14	14	28

4.2.4.5 Being Nervous and Anxious

Three students from the control group, 21.42% of the group, and two from the experimental group, 14.28% of the group, indicated that they felt the lecturer was nervous

and anxious during the lecture. In general, the fact that these percentages are low indicates no serious problem affecting the lecture delivery caused by the lecturer's nervousness or anxiety. The table below gives a clear picture of the answers the students provided:

Table 4.40 - Being Nervous and Anxious

Count

		Students' Code		Total
		Control Group	Experimental Group	
Nervous and Anxious	Yes	3	2	5
	No	11	12	23
Total		14	14	28

4.2.4.6 Not Providing a Clear Opening

When asked whether the lecturer provided a clear opening in the beginning of the lecture, five students from the control group, accounting for 35.71% of the group, as opposed to only two students from the experimental group, argued that they find the opening of the lecture unclear. Here again, lack of training in NT and weak listening skills might be the reasons why the students gave such a response.

Table 4.41 - Not Providing a Clear Opening

Count

		Students' Code		Total
		Control Group	Experimental Group	
No Clear Opening	Yes	5	2	7
	No	9	12	21
Total		14	14	28

4.2.4.7 Having Difficulty Explaining Points

Five students from the control group and only one from the experimental group stated that they felt the lecturer had difficulty getting to the point she wanted to make which represents the students' attitude towards the lecturer's command of the lecture material.

Table 4.42 - Having Difficulty Explaining Points

Count

		Students' Code		
		Control Group	Experimental Group	Total
Difficulty Explaining Point	Yes	5	1	6
	No	9	13	22
Total		14	14	28

4.2.4.8 Saying too much too Quickly

This question deals with the speed at which the researcher delivered the final lecture. Only five students from the control group as opposed to three from the experimental group indicated that the lecturer said too much in a short period of time, i.e. the speed of delivery was too high for them to catch up with everything the lecturer said. This is obviously a listening problem in that it shows these students' inability to deal with the quantity of the information provided in the limited amount of time in which it was delivered. However, the fact that only eight students, 28.57 of the sample, felt this, while the rest of the sample did not feel the lecturer spoke too quickly for them indicates no serious problem in this respect. See 4.2.3.9 above for more on the students' ideas about the speed of speech.

Table 4.43 - Saying too much too Quickly

Count

		Students' Code		
		Control Group	Experimental Group	Total
Too Much Too Quickly	Yes	5	3	8
	No	9	11	20
Total		14	14	28

4.2.4.9 Having Difficulty Timing Lecture

When asked whether or not the lecturer had difficulty timing the lecture, only four students from the control group stated that they felt the timing was not controlled. This is an indication that these students needed more explanation on some parts of the lecture that the other students had no difficulty with. All the students from the experimental group found no

problem with the lecture timing; thus, they were able, from their point of view, to follow the development of the lecture points and to easily move from one point to the other. The following table gives a clear picture of the answers:

Table 4.44 - Having Difficulty Timing Lecture

Count

		Students' Code		
		Control Group	Experimental Group	Total
Difficulty Timing Lecture	Yes	4		4
	No	10	14	24
Total		14	14	28

4.2.4.10 Using too much Technical Language

Five students from the control group, a total of 35.71% of the group, and three from the experimental group, 21.42% of the group, felt that the lecturer used too much technical language in the lecture, such as the terms 'hemisphere' and 'lobe' in the final lecture (see Appendices 8 and 12 for more). The students' trouble dealing with technical terms might be due to the fact that they had little background knowledge concerning the topic of the lecture which was expected taking into consideration that they had not been given any material to prepare in advance. See 2.2.5.1.2 for the importance of using material suitable to the listeners' LC ability in lectures.

Table 4.45 - Using too much Technical Language

Count

		Students' Code		
		Control Group	Experimental Group	Total
Too Much Technical Language	Yes	5	3	8
	No	9	11	20
Total		14	14	28

4.2.4.11 Using too much Humor

None of the students in the two groups felt that the lecturer used too much humor in the lecture; thus, the atmosphere was quite formal. This indicates that the students understood

that the material of the lecture was to be taken seriously. This serious atmosphere was intended by the lecturer to indirectly encourage the students to take the material of the lecture seriously. As stated in 3.4.3, the students were informed that the lecture material would be tested in order to indirectly encourage them to take notes.

Table 4.46 - Using too much Humor

Count

		Students' Code		
		Control Group	Experimental Group	Total
Too Much Humour	No	14	14	28
Total		14	14	28

4.2.4.12 Assuming too much Student Knowledge

Two students from the control group and four from the experimental group, accounting for a total of 21.42% of the students in both groups, felt that the lecturer assumed too much knowledge on the part of the students. This shows that these students had little knowledge of the material of the lecture and needed more explanation about the points being discussed. The following table gives a clear picture of the students' replies:

Table 4.47 - Assuming too much Student Knowledge

Count

		Students' Code		
		Control Group	Experimental Group	Total
Assume Too Much Student Knowledge	Yes	2	4	6
	No	12	10	22
Total		14	14	28

4.2.4.13 Unhappy with Own Knowledge

When asked if they felt the lecturer was frequently unhappy with her knowledge of the material she discussed, three students from the control group and two from the experimental group stated that they felt the lecturer was unsatisfied with her knowledge. The students who gave this answer, a total of 17.85% of the sample, show that they are somewhat uncertain of

the lecturer's control of the material. However, this percentage is too low to indicate a serious problem in the lecture.

Table 4.48 - Unhappy with Own Knowledge

Count

		Students' Code		
		Control Group	Experimental Group	Total
Not Happy with Own Knowledge	Yes	3	2	5
	No	11	12	23
Total		14	14	28

4.2.4.14 Not Providing a Summary

Six students from the control group and two from the experimental group stated that the lecturer did not give a summary at the end of the lecture. This was a clear indication that the students did not realize that the lecturer provided a summary at the end of the lecture which probably derives from their weak listening skills (see Appendices 8 and 12 for the summary of this lecture). It is important to note here that most of the sample did not write a separate section in their notes for the summary of the lecture. They might have used this part of the lecture to complete some of the points they had left incomplete or add more details in their notes using the repetition of the most important information provided in the summary. Hartley and Cameron (1967: 34-35) reached a similar conclusion, as mentioned in 2.3.1 above, that the students' performance declined in the last ten minutes of the lecture due to the repetition of the main points in the lecture.

Table 4.49 - Not Providing a Summary

Count

		Students' Code		
		Control Group	Experimental Group	Total
No Summary	Yes	6	2	8
	No	8	12	20
Total		14	14	28

4.2.4.15 No Clear Links between Sections

When asked whether or not the lecturer linked the sections of the lecture clearly, six students from the control group and only one from the experimental group stated that the links were unclear. When looking back at the lecture transcript (see Appendix 8), we find links such as '*now / lets move on to the speech chain*' among many others. Such links present direct and obvious signals for the students of a move onto new sections. Here again, the students' inability to identify such links lies in their weak listening skills, for they were unable to pick out these links even with the availability of the lecture outline of the different sections of the lecture on the board.

Table 4.50 - No Clear Links between Sections

Count

		Students' Code		
		Control Group	Experimental Group	Total
No Clear Links	Yes	6	1	7
	No	8	13	21
Total		14	14	28

4.2.4.16 Not Giving Sufficient Time for Copying and Note Taking

When asked if the lecturer gave enough time for the students to copy the lecture outline and diagrams from the board or take notes, seven students from the control group, 50% of the group, and four from the experimental group, 28.57% of the group, expressed their need for more time even though the diagrams provided on the board were drawn before the lecture started and remained on the board for the entire time. As mentioned in 3.4.3.2.3 above, a short outline of the lecture and a diagram of the speech chain from Denes and Pinson (1963: 5) (see Appendix 12 for the diagram) were put on the board for students to copy. However, they were not directed or urged to copy the outline or diagram in order to study their reaction toward the visuals and see what they would do in the normal classroom setting they were studied in. As for NT, it is only normal that students need more time to take notes than to copy visual aids, for the former skill requires listening to and understanding what is being said rather than merely copying which can be done mechanically even when comprehension fails. It is worth noting here that even the student

who took no notes from the experimental group gave an answer to this question, stating that she needed more time for copying and NT even thought she did neither activity in the respective lecture.

Table 4.51 - Not Giving Sufficient Time for Copying and Note Taking

Count

		Students' Code		
		Control Group	Experimental Group	Total
Not Give Enough Time for Copying/Notes	Yes	7	4	11
	No	7	10	17
Total		14	14	28

4.3 Students' Notes

In this section, we will discuss the lecture notes taken by the students involved in this study. The discussion is divided into two parts: the first is a discussion of the different aspects of the notes based on the marking chart used when marking each set of notes, explained in 3.6.2 above, and the second part is a discussion of whether or not a correlation exists between good note takers and proficient students by comparing the marks the students got for their notes with an independent proficiency mark for each student.

Results of the analysis of the notes the students wrote down in both the first and final lectures for the two groups appear in Tables 4.52 and 4.53 below. For ease and clarity, the students' names are organized in a descending order based on the total mark they got for their notes in the first lecture in this study. The abbreviations appearing in these tables stand for the following points: 'Typ' for the 'Type' of notes written, 'Abb' for the 'Abbreviations' used, 'Sym' for 'Symbols', 'Wor' for 'Words', 'Phr' for 'Phrases', and 'Sen' for 'Sentences'. All except the first aspect, i.e. the type of notes written, are awarded points for each information unit appearing in the notes. The points appearing between brackets under Abbreviations and Symbols represent abbreviations or symbols that do not express independent information units but rather come as part of phrases or sentences to stand for words or ideas; thus, these have not been accepted as independent units worthy of points to add to the total marks, as explained in 3.6.2 above, but have been recorded here merely to give a picture of the number of abbreviations and symbols the students used in their notes.

Table 4.52 - Control Group Notes Details

	First Lecture							Final Lecture						
Students	Typ	Abb	Sym	Wor	Phr	Sen	Total	Typ	Abb	Sym	Wor	Phr	Sen	Total
1 Noora	outline	0	0	11	92	12	115	linear	0	(1)	29	84	1	114
2 Rahma	outline+linear	0	2	18	59	13	92	outline+linear	0	0	13	43	0	56
3 Raeefa	outline	1	1	12	73	1	88	outline+1fork	(1)	0	31	39	3	73
4 Sheikha	outline	0	0	12	66	0	78	outline+1fork	(1)	0	18	38	0	56
5 Noor	outline	0	1	8	45	24	78	linear	0	0	23	26	6	55
6 Sumaya	outline	0	1	9	56	3	69	outline	0	0	27	44	0	71
7 Khalid b	outline	(2)	0	16	49	4	69	outline	0	0	6	26	0	32
8 Khalid j	outline+1fork	0	5	13	45	3	66	outline	(1)	0	13	24	0	37
9 Yaqoob	outline+5fork	(3)	1	26	36	0	63	outline+2fork	0	0	25	19	0	44
10 Moza	outline	0	0	4	43	5	52	outline	0	0	14	25	0	39
11Mhmod	outline+1fork	0	0	12	33	0	45	copied board	0	0	0	0	0	0
12 Said	outline	0	0	5	33	0	38	copied board	0	0	0	0	0	0
13 Hamed	outline	0	0	7	23	6	36	outline	0	1	10	23	0	34
14 Samer	linear	0	0	4	12	1	17	copied board	0	0	0	0	0	0

Table 4.53 - Experimental Group Notes Details

	First Lecture							Final Lecture						
Students	Typ	Abb	Sym	Wor	Phr	Sen	Total	Typ	Abb	Sym	Wor	Phr	Sen	Total
1 Mariam	outline+1fork	(1)	1	20	70	0	91	outline+1fork	(2)	0	24	56	0	80
2 Bushra	outline	(2)	1	12	62	10	85	outline+2fork+1tree	(1)	0	37	60	0	97
3 Ahlam	outline	(9)	1	10	38	35	84	outline+1tree+1pattern	(3)	0	28	61	0	89
4 Shamsa	outline	5	0	26	49	0	80	outline+1tree+2pattern	0	(2)	22	39	0	61
5 Amal	outline+1fork	0	1	22	50	5	78	outline	0	0	10	30	2	42
6 Bedir	outline	(5)	(3)	14	55	9	78	outline+2fork	(3)	0	28	32	0	60
7 Usama	outline	(1)	1	15	30	30	76	outline	(2)	0	5	25	0	30
8 Rashid	outline	(1)	1	10	47	9	67	outline	0	0	4	15	0	19
9 Abeer	outline	(2)	1	10	40	10	61	outline+1fork	(1)	1	35	36	0	72
10 Rabea	outline+1fork	(4)	1	15	39	5	60	outline+1fork	(1)	0	35	41	0	76
11 Alya	outline+2fork	0	1	27	29	1	58	outline	0	(1)	13	23	0	36
12 Hilal	outline+1fork	0	1	14	22	8	45	linear	0	0	4	6	0	10
13 Bthana	no notes	0	0	0	0	0	0	outline+2fork+2tree	(3)	0	13	69	0	82
14 Khlood	words	(1)	0	4	1	0	5	no notes	0	0	0	0	0	0

4.3.1 Marking Chart Aspects

4.3.1.1 Type of Notes

As shown in Tables 4.52 and 4.53 above, most of the notes the students of both the control and experimental groups wrote are in outline form or a combination of outline form together with other NT techniques, such as trees, forks, etc. Some students added forks to their outlines to explain words or add ideas, this combination of NT techniques appears in the above two tables as 'outline+fork' NT technique; other students wrote paragraphs to explain parts of the outlines which is called 'outline+linear', and so on.

The reason for using outline form was not discussed with the students, but based on the researcher's own knowledge and observation of what the students took in the other courses they studied at the time of this investigation. However, it may well be that they use outline form because it is the technique used and enforced in other courses. For example, the writing course the students took concurrently with the one during which this study was administered helped them write essays developed from outlines; also, the speaking part of the course within which this study was administered required students to give presentations following outlines shown on the board. In any case, the use of the outline NT technique by the two groups in the first and final lectures, without being asked to do so, suggests that it is an easy and useful method of NT.

In general, the notes the students wrote are readable and organized. Numbers or symbols, e.g. dots, hyphens, or the symbol '#', were used in the outlines to organize the ideas and details. The length of the notes ranged from half a page to six pages. Although this variable is not an indication of the effectiveness of the students' notes in recording useful information from the lecture, it gives a picture of how the students organized their thoughts on paper and of the readability of the notes later on. The size of the handwriting the students used also gave an indication of how they arrange their ideas on paper (see Appendices 14-19 for examples of students' handwriting in a selection of notes).

4.3.1.1.1 Note Taking Techniques Used

As discussed in 3.4.3.2.2 above, the experimental group was introduced to the common NT techniques in the literature: outline notes, linear notes, and pattern notes, while the control group was not given information about these techniques. The following is an

account of the types of NT techniques used by the two groups in the lectures delivered in this study:

4.3.1.1.1.1 Control Group

While most students from both groups made use of the visual aids by considering them a good starting point for their notes, other students considered them the actual notes of the lecture and copied them word for word without adding any further explanation from the lecture. These students clearly misunderstood the importance of these visuals taking them as the only important information in the lecture. Three students from the control group, students 11, 12, and 14, copied only the information on the board in the final lecture. In reality, these students took no notes, for copying information provided by the lecturer on the board involves neither listening nor processing which is why they were disregarded in the discussion below. The fact that these three students copied the visuals and took no notes agrees with Ngarari's (1990: 34) argument that students 'tend to take few notes if visual aids are used in a lecture'. Ngarari also reports Hartley and Cameron (1967) and Maddox and Hoole (1975), mentioned above, observing that when slides are used in a lecture, students may face certain difficulties with them which might discourage them from recording any information.

As shown in Table 4.52 above and 4.54 below, in the first and final lectures of this group, most of the notes are purely in 'outline' form. When other NT techniques were used accompanying the outlines, the students of this group either added forks to the outlines or merely wrote paragraphs to explain parts of the outlines. In the first lecture of this group, 64.28% of the notes are in purely 'outline' form, 21.42% are in 'outine+fork' combination, one set of notes, 7.14% of the notes, is in 'outline+linear' combination, and another 7.14% are in purely 'linear' form. As for the final lecture of this group, after eliminating students 11, 12, and 14, we find that 45.45% of the notes are in purely 'outline' form, 27.27% are in 'outine+fork' combination, one set of notes (9% of the notes) is in 'outline+linear' combination, and 18.18% are in purely 'linear' form. See the table below for a clear picture of the type of notes used in both lectures.

Table 4.54 - Note Taking Techniques Used - Control Group

Control	outline	outline+linear	outline+fork	outline+tree+pattern	outline+fork+tree	linear
First Lecture	9	1	3	0	0	1
Final Lecture	5	1	3	0	0	2

4.3.1.1.1.2 Experimental Group

Here again, in the first and final lectures for this group, outlines were used alone or in combination with other NT techniques. In addition to using 'outline+fork', which is a technique used by some of the students from the control group, new combinations of NT techniques appear in the notes of the experimental group: 'outline+tree+pattern' and 'outline+fork+tree'. These two combinations of NT techniques appear in the final lecture of the experimental group which is clearly the effect of the NT workshop given to this group in which they were introduced to different NT techniques and the possibility and usefulness of combining them when taking notes.

Students 13 and 14 in Table 4.53, refused to take notes in one of the lectures. By eliminating these two students, we find that in the first lecture for this group, 53.84% of the notes were in purely 'outline' form, and 38.46% were in 'outline+fork' combination. As for the final lecture, after the note taking workshop was provided to this group, 30.76% of the notes appear in purely 'outline' form, another 30.76% of the notes appear in 'outline+fork' combination, 15.38% of the notes appear in 'outline+tree+pattern' combination, and another 15.38% appear in 'outline+fork+tree' combination. See the table below for a clear picture of the NT techniques used.

Table 4.55 - Note Taking Techniques Used - Experimental Group

Experimental	outline	outline+linear	outline+fork	outline+tree+pattern	outline+fork+tree	linear
First Lecture	7	0	5	0	0	0
Final Lecture	4	0	4	2	2	1

4.3.1.1.2 Variations in Note Taking Techniques Used

As indicated in Tables 4.52 and 4.53 above, some students were inclined to use one NT technique in both the first and final lectures in this study, while others modified or changed the technique they used in the final lecture. This variation of the NT techniques used by the two groups in the two lectures is also clear in the tables above where the effect of the NT workshop is evident in the use of the two new NT techniques by the experimental group. The following table also gives a clear picture of the differences between the two groups in this respect. It shows the number of students from both groups who changed their NT techniques as apposed to those who used the same techniques in both lectures. The numbers appearing in this table represent the students' numbers as appearing in Tables 4.52 and 4.53 above. The table also shows the students who copied from the board and those who took no notes which are two categories of students who have been set aside in the discussions above.

Table 4.56 - Changes in Note Taking Techniques

	Changed	Same	Copied	No Notes
Control	1,3,4,5,8	2,6,7,9,10,13	11,12,14	0
Experimental	2,3,4,5,6,9,11,12	1,7,8,10	0	13,14

What is interesting to see in this table is that the students who did not modify or change their NT techniques are equal in gender in each group. Three female and three male students from the control group used the same NT techniques in the first and final lectures as compared to two female and two male students from the experimental group who used the same NT techniques in both lectures. This means that in this sample both male and female students showed the same tendency in using one type of NT technique in both lectures.

Taking all fourteen students in each group into consideration, 10 students from the experimental group, 71.42% of the group, changed their NT strategy in the final lecture after being involved in the NT workshop. As for the control group, out of the 11 students who took notes in both lectures, after eliminating the students who merely copied the board in the

final lecture, only five students, 45.45% of the group, changed their NT strategy in the final lecture, which comes without them being involved in the NT workshop.

4.3.1.2 Visual Aids

All the students in the control group and most of those in the experimental group copied the visual aids provided on the board. Two students from the experimental group, students 13 and 14 in Table 4.53 above, were exceptions. The former neither took notes nor copied the visual aids in the first lecture, while she copied the information provided on the board and added notes to them in the final lecture. This student clearly made use of the NT workshop given to the group by following the advice on the importance of the visual aids provided for students by lecturers and the usefulness of using them as a basis for notes. One the other hand, student 14 took notes in the first lecture in the form of a few words, none of which were from the board, and took no notes nor copied the information on the board in the final lecture.

4.3.1.3 Abbreviations and Symbols

As discussed in 3.6.2 above, abbreviations and symbols appearing as separate information units in the notes were awarded points, while they were simply made note of when appearing in the middle of phrases or sentences or connecting between words without giving independent ideas. In Tables 4.52 and 4.53 above, as mentioned in 4.3 above, the points appearing between brackets under Abbreviations and Symbols indicate the number of abbreviations or symbols that do not express independent information units but rather come as part of phrases or sentences to stand for words or ideas. These have not been accepted as independent units; therefore, they did not add to the totals the students got for the information units in their notes.

In general, the arrows used in the notes stood for two ideas: 'which means' and 'then'. These were not counted as information units but merely helped understand the notes and the connections between the information units in them (see Appendix 14). See also Appendix 17 for the abbreviation 'que' for 'questions' as an example of an abbreviation that was not counted as an independent information unit due to its appearance in the middle of a phrase 'Ask que'. Also, see the symbol 'F' in the same appendix which stands for 'failing the

student'; this was awarded one point for referring to an independent information unit from the lecture. In general, students in both groups used few abbreviations; this agrees with the teachers' complaint that Tabberer (1987: 101-103) reported regarding the scarcity of abbreviations in students' notes, discussed in 2.2.5.2.1 above.

4.3.1.3.1 Control Group

As shown in Table 4.52 above, only a few abbreviations and symbols appear in the notes of the first lecture, and even fewer appear in the notes of the final lecture. Only three students from this group, 21.42% of the students in this group, used abbreviations in the first lecture; of these abbreviations only one was an independent information unit. In the final lecture for this group, of the 11 students who took notes in this lecture, three students, 27.27% of the students, used abbreviations, but none of which were independent information units. As for the symbols this group used in the first lecture, seven students from this group, 50% of the students of the group, used symbols to stand for independent information units. As for the final lecture, out of the 11 students who took notes in this lecture, only two students used symbols, 18.18% of the group, only one is an independent information unit.

4.3.1.3.2 Experimental Group

As shown in Table 4.53 above, of the 13 students who took notes in the first lecture of this group, ten students, 76.92% of the students of this group, used abbreviations; only one student used the abbreviations to stand for independent information units. In the final lecture for this group, eight students out of the 13 who took notes in this lecture, 61.53% of the group, used abbreviations, but none expressed independent information units. By comparison with the students of the control group, more students from the experimental group used abbreviations in both the first and final lectures. None of the students in either group used abbreviations to stand for independent information units.

As for symbols, 11 students, 84.61% of the students, used symbols in the first lecture for this group. Only one student did not use the symbols to stand for independent information units. In the final lecture, only three students, 15.38% of the students who took notes, used symbols, but only one was used as an independent information unit. Here again,

more students from the experimental group used symbols in the first lecture than the students of the control group did.

It was expected that students of the experimental group would use more abbreviations and symbols in the final lecture after being introduced to the usefulness of using these NT features in the NT workshop. The fact that they used more abbreviations and symbols in the first lecture than they did in the final lecture might be due to the nature of the material of the two lectures. The first lecture included less technical terms than the final lecture which is why they might have felt the need to write the terms and ideas in full rather than referring to them by using abbreviations and symbols.

4.3.1.4 Words, Phrases and Sentences

In order to find out which of the three forms: words, phrases, or sentences, the students used more frequently to reproduce the information units of the two lectures, the totals of each form were found by simply adding the sum of the number of information units under each column for words, phrases and sentences, see Tables 4.52 and 4.53 above. For example, the total number of words produced by the students of each group was found by adding up the number of words written by the students of the groups, and the same was done for the number of phrases and sentences. The totals of the three forms were then compared in order to see which one was the highest. The points of only the first ten students from each group were involved in this comparison, for three students from the control group merely copied the visuals of the final lecture and two students from the experimental group (students 13 and 14 in Table 4.53) took no notes in either one of the two lectures. The choice to involve only the first ten from each group was made to ensure that an equal number of students' notes is used in this comparison (see 4.3 above for the rational behind putting the students' names in the order in which they appear in Tables 4.52 and 4.53 above).

The totals of the information units appearing in the forms of words, phrases, and sentences in the notes of the first ten students from the two groups for the two lectures are shown in the tables below:

Table 4.57 - First Lecture
Words, Phrases and Sentences

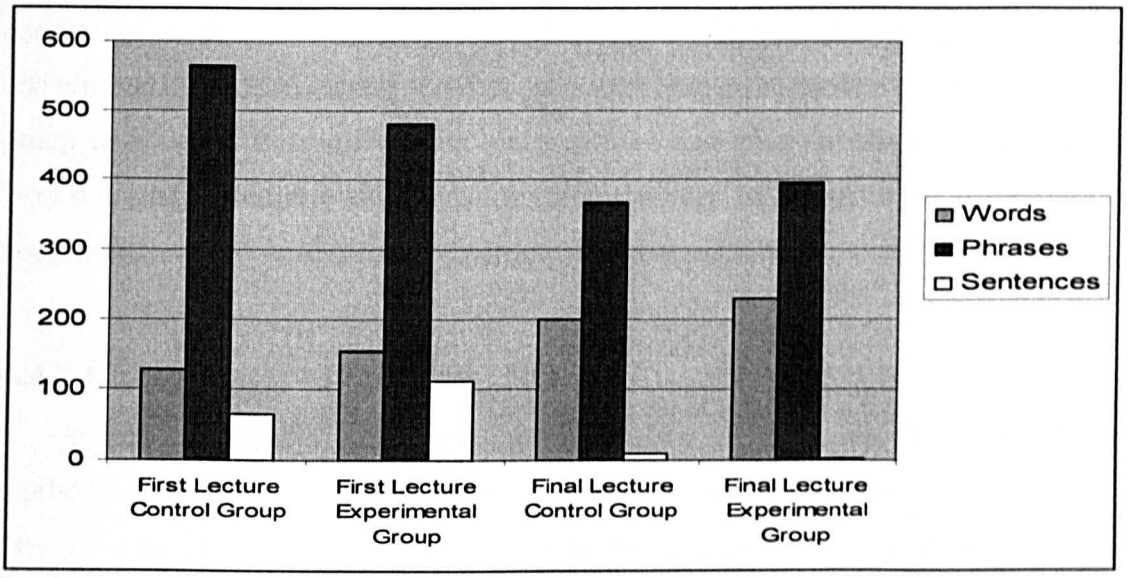
First Lecture	Words	Phrases	Sentences
Control Group	128	564	65
Experimental Group	154	480	113

Table 4.58 - Final Lecture
Words, Phrases and Sentences

Final Lecture	Words	Phrases	Sentences
Control Group	199	368	10
Experimental Group	229	395	2

The following chart shows the variations between the above totals for the two groups in a clearer way:

Chart 4.1 - Words, Phrases and Sentences - Variations Between the Two Groups



From Tables 4.57 and 4.58 and the chart above, it is clear that the two groups used more phrases in their notes to express information units than words and sentences, for the totals of the information units appearing in the forms of phrases for both the control and experimental groups in the first and final lectures are considerably higher than the totals of the information units appearing in the forms of words and sentences in these lectures. This high dependence on phrases clearly suggests that the students were trying to produce a complete but short version of what they were listening to. The use of phrases is more suitable than words, which might become meaningless to the students after lectures, or sentences, which take too long to write. Also, it is clear that the students of the two groups used more words than sentences to express information units from the lectures. These findings are in

conformity with what most of the advice on NT suggests since words and phrases are easier and quicker to write than complete sentences, as stated in 2.2.2.2, 2.2.3.1, and 2.2.3.3 above.

In addition, when comparing the types of units the two groups produced in the first lecture with those in the final lecture, we notice the increase in the number of words used to express information units and the decrease in the number of phrases and sentences used in this respect. This surprising similarity in pattern between the groups, which comes despite the fact that the control group had not received a NT workshop, might be due to the subject matter of the final lecture which involved new terminology and definitions that the students clearly found easier to explain in terms of words and phrases than sentences. However, by comparison with the control group, it is clear that the experimental group used more words and phrases in the final lecture and depended very little on sentences which indicates that the group took down more information units in total and used the advice offered in the NT workshop they were provided with regarding the need to use more words and phrases in notes as opposed to sentences to help improve and speed NT.

4.3.2 Effectiveness of Students' Notes

In this section, we tackle two questions: How effective are the students' notes in reproducing the information of the lectures and how do the students' totals, i.e. the marks they were awarded for the notes they took in the two lectures in this study, relate to their general academic quality as students? The former question is answered through studying the totals awarded to the students for their notes in both lectures, while the latter question is answered through correlating the students' totals with an independent proficiency mark.

4.3.2.1 Quantity of Information Units

As shown in Tables 4.52 and 4.53 above, the amount of information units that the students wrote down from the two lectures delivered in this study ranges from five information units, noted by the lowest student in the experimental group in the first lecture, to 115 information units, noted by the highest student in the control group in the first lecture. The fact that one student wrote more notes than the other can be due to many reasons such as the different needs of these students for these notes, among many others (see 2.2.5-2.2.5.2.2 for more). Different students have different background knowledge and purposes

for taking notes; hence, they take down a different quantity as well as quality of notes. Thus, different students take different notes according to need; the information units they find useful for their purpose of NT (see 2.2.1 above) are recoded, while those that are already known to them or do not serve their purpose of listening and NT are discarded.

As discussed in 4.1.1.2.1 above, 74.1 % of the sample reported that they take notes of 'Useful Information', and 48.1 % take notes of 'New Information', but what is useful or new to one student might be irrelevant or old to another. As discussed in 2.2.2.2 above, 'about a third' of the information in lectures is expected to appear in students' notes. While Hartley and Cameron (1967: 32-33) argue (discussed in 2.3.1 above) that this 'one–third' of what is communicated to students is a reasonable amount or even 'a generous estimate' to expect to find in their notes, Howe (1986: 82) argues that this amount of information content is a fairly low percentage. Nonetheless, it is clear that when evaluating lecture notes the quality of the information produced in the notes is a more important variable to consider than the quantity of information recorded, taking into account factors such as purpose and background information as discussed in 2.2.1, 2.2.3 and 2.2.2.1 above.

As mentioned in 3.6.1 above, the total of information units found by the researcher in the first and final lectures are 152 and 182 units respectively. By simply dividing these totals by three, we find that one-third of the information units in the first lecture is 50.66, while that in the final lecture is 60.66. When comparing these thirds with the totals the sample was awarded for their notes in the respective lectures, as shown in Tables 4.52 and 4.53 above, and after disregarding the students who took no notes or copied from the board from both groups, we find the following:

1. In the first lecture, 10 students from the control group out of the 14 who took notes in the lecture, and 11 students from the experimental group out of the 13 who took notes in the lecture wrote over a third of the information units in the lecture.
2. In the final lecture, only 3 students from the control group out of the 11 who took notes in the lecture, as compared with 7 students from the experimental group out of the 13 who took notes in the lecture wrote over a third of the information units in the lecture.

This means that 71.42% of the students of the control group and 84.61% of the students of the experimental group wrote over a third of the information units in the first lecture, while only 27.27% of the students of the control group and 53.84% of the students of the

experimental group wrote over a third of the information units in the final lecture. This means that the students' notes in the first lecture were fuller and more detailed and therefore more effective than those in the final lecture. The decrease in the number of information units in the students' notes is not the subject of attention here; rather, the fact that a good percentage of the students in the two groups wrote 'over a third' of the information units in the lectures indicates that they can indeed produce effective notes, taking into consideration what Hartley and Cameron (1967: 32-33) agreed as the 'reasonable' and 'generous' quantity of the information units written down from lectures- 'one-third' of the information, as discussed above. Thus, as far as the first research question proposed in this study is concerned, Omani EFL university students' lecture notes are indeed effective representations of the material discussed in lectures. The decline in the number of information units the two groups recoded in the final lecture may be due to the difficulty of the subject matter of the final lecture as compared to that of the first, having in mind that in both lectures the students were indirectly encouraged to take notes and were told about the lecture topic before each lecture.

Furthermore, Tables 4.52 and 4.53 above also show that the highest five students in both groups are female. This agrees with findings reached in other studies, such as those by Hartley and Cameron (1967: 32) and Maddox and Hoole (1975: 22-23) (discussed in 2.3.1 above), and the findings of Nye (1978) and Hartley and Trueman (1978) (reported by Ngarari, 1990: 32), and those by Kiewra (1984), Cohn et al. (1995), and Eggert (2000) (reported by Williams and Eggert, 2002: 184-185), regarding the superiority of women as note takers. However, the finding reached in this study regarding the superiority of female note takers can be limited to the sample of this study alone, for it included more female than male students. This conforms to the conclusion reached by Sutherland et al. (2002: 380) who state that since their sample was 'biased towards females', which is, they argue, 'a common occurrence in education and teaching of English as a foreign language courses', the findings are limited to the student population.

In spite of the importance of the above results, the above discussion should be seen in light of the findings reached in Tables 4.52 and 4.53 above, where the type of notes each student took in the two lectures, the variation in the number of words, phrases and sentences used in each, and the number of abbreviations and symbols used in each are pointed out.

Such a connection would help reach a better picture of the quality of the students' notes, for as Hartley and Cameron's (1967: 34-35) argue, their results show that the quality of the notes taken down, in terms of 'the importance' of the information units they contain, is of more significance than their quantity (see 2.3.1 above).

4.3.2.2 Good versus Bad Notes

The question investigated here is whether 'good notes' correlate with 'good students'; in other words, do 'good students' take 'good notes'? In order to investigate whether proficient students both take good notes and are good academically, an independent measure of the students' academic proficiency was compared to the totals they were awarded for the notes of both the first and final lectures in this study. The independent measure of proficiency used here is the students' marks for the course within which this study was administered (see 3.2 above). This measure represents the final marks the students were awarded in the course for their speaking and listening tests in this course. 5-minute interviews (or oral recall tests) were used in the speaking component of these tests to measure the students' recall of some of the important information in the two lectures delivered in this study. These recall tests involved asking students about specific information from the two lectures in addition to other information related to the units discussed in the course to investigate the extent at which the students are able to distinguish, understand and correctly answer the questions related to the material of the two lectures delivered in this study. The course marks were compared with the totals of both the first and final lectures since the NT training took place before the course ended and the course marks were finalized. The totals the sample was awarded for their notes in the two lectures (appearing in Tables 4.52 and 4.53 above) were converted to become out of 100. The students from both groups who did not take notes in either one of the two lectures or simply copied the visuals on the board were eliminated from this comparison. After eliminating these students, in order to achieve a balance between the number of students in both groups, only the first ten students from each group as appearing in Tables 4.52 and 4.53 were involved in this comparison. Below are two tables showing the totals (out of 100) the students of both groups were given for the notes in the two lectures and their course marks:

Table 4.59
Control Group
Notes Totals and Course Marks

Students	First Lecture Total	Final Lecture Total	Course Marks
1 Noora	75.7	62.6	77.9
2 Rahma	60.5	30.8	79.6
3 Raeefa	57.9	40.1	82.8
4 Sheikha	51.3	30.8	72.6
5 Noor	51.3	30.2	83.6
6 Sumaya	45.4	39	79.5
7 Khalid b	45.4	17.9	64.1
8 Khalid j	43.4	20.3	79.8
9 Yaqoob	41.4	24.1	67.6
10 Moza	34.2	21.4	72.6

Table 4.60
Experimental Group
Notes Totals and Course Marks

Students	First Lecture Total	Final Lecture Total	Course Marks
1 Mariam	59.9	44	76.8
2 Bushra	55.9	53.3	78.1
3 Ahlam	55.3	48.9	83.0
4 Shamsa	52.6	33.5	76.5
5 Amal	51.3	23.1	84.6
6 Bedir	51.3	33	70.5
7 Usama	50	16.5	79.5
8 Rashid	44.1	10.4	80.2
9 Abeer	40.1	39.6	79.6
10 Rabea	39.5	41.8	69.8

Product moment correlation coefficient was applied to the totals of the first and final lectures for the two groups. A significant correlation of 0.8 was found between the first and final lectures of the control group, while only 0.3 was found between the first and final lectures of the experimental group. The high correlation between the lectures of the control group indicates that the students of that group did not change their NT techniques, while the fact that there is a low correlation between the two lectures of the experimental group indicates that some change has occurred. This might be the result of the NT workshop the experimental group was provided with. However, a t-test and a non-parameter test show 'no significant difference' between the two groups in terms of their notes' totals in the two lectures. After consulting with statisticians regarding the possible reasons why this is so, they explained that the sample is too small to reach any conclusion regarding the variable being investigated here.

The averages of the three marks in the tables above for each group, i.e. the averages of the first, final and course marks for each group, were calculated to study any differences between the two groups. The averages of totals of the first lecture for the groups are: 50.65% for the control group and 50% for the experimental group. This shows that the two groups took the generally the same amount of notes in this lecture. On the other hand, the averages of the totals of the final lecture for the groups are: 31.72% for the control group and 34.41% for the experimental group. The slightly higher average found for the experimental group

indicates that this group took more information units in the final lecture than the control group. This difference of 2.69% between the two averages, however small, might be the result of the NT workshop with which the experimental group was provided before the final lecture. The fact that the average of the totals for the experimental groups was lower than the control group in the first lecture but higher in the final lecture also indicates that a change in the NT technique used by students of the experimental group occurred.

As for the averages of the course marks for the two groups, the average of the control group is 76.01%, while that of the experimental groups is 77.86%. The difference between the two averages is 1.85% which is not that high but is an indication that some of the students in the experimental group are generally more proficient that those of the control group.

Thus, we cannot conclude based on the above sample that proficient students take good notes while weak students take bad notes. However, a look at the type of notes the students took in the two lectures as appearing in Tables 4.52 and 4.53 above show that some of the proficient students in both groups used a combination of NT techniques in both lectures or altered their NT techniques in the final lecture (see students 1, 3, 4, 5 and 8 in the control group and students 2, 3, 4, 5, 6 and 9 in the experimental group). In contrast, other proficient students used one NT technique or the same combination of NT techniques in both lectures (see students 2 and 6 in the control group and students 1, 7 and 8 in the experimental group). If the sample was larger, a clearer cut result could have been reached regarding the connection between the NT techniques used by proficient students as opposed to those used by weak students.

4.3.3 A Sample of Notes

In this section, the replies of a sample of students to the questions of the interviews and some of the questions in the questionnaires administered in this study, 3.4.1 and 3.4.2 above, are discussed in relation to the notes they took in this study in order to reach a deeper understanding of why they took the notes the way they did. Since each questionnaire included a number of questions, only a selection of the relevant questions to this discussion were involved in this comparison. See Appendix 13 for the samples' replies to the set of questions chosen from the first questionnaire, questions 2, 3, 4, 5, 6, and 9, and the third

questionnaire, questions 2, 8, and 12. As for questionnaire four, most of the replies given were in favour of the lecturer; thus, only the students' criticisms were reported. Questionnaire two was not used in this comparison for it did not provide relevant information for this discussion. The sample was selected based on the marks they were awarded for their notes in this study. The sample represents the highest, medium, and lowest scorers in the two groups; also, it involves a student from each group representing a non-note taker for either copying from the board or not taking any notes in either one of the two lectures.

In addition to the discussion of the sample's replies and the NT techniques they used in both lectures, some parts from the notes of two students, one from each group, have been discussed in detail to shed more light on how the notes were marked and give a clearer picture of the students' NT strengths and weaknesses.

4.3.3.1 Note Takers

4.3.3.1.1 Highest Students

The highest student from the control group is Noora, and the highest from the experimental group is Mariam. Since the total that Mariam was awarded for the notes of the final lecture went down, it was decided to study both her case and that of the second student in the group, Bushra, whose total in the final lecture went up as compared to her total in the first lecture. This investigation was carried out to ensure that the sample selected was based on the marks they were awarded for their notes in both the first and final lectures presented in this study and to examine any differences between these two students in the same group.

The replies these three students gave in the interviews are almost identical, all three students take notes in 'some' lectures of only the 'useful/new' information and review them 'before tests'. The only student who reported reviewing the notes before the 'next lectures' is Noora from the control group, who has the highest totals in both first and final lectures among the groups. All three students also reported that they 'need training in NT in lectures' for they have 'not had' any such training. Noora and Bushra reported preparing for 'all lectures' by studying the 'textbook chapters' assigned by the lecturers, while Mariam prepares for only 'some' lectures by mainly studying the textbook chapters assigned by the lecturers and sometimes uses books from the library. Noora 'always' formulates questions

and writes them down, while Mariam and Bushra only sometimes do so. As for the review of notes, in addition to what they reported in the first interview about reviewing notes before test, Noora added that she reviews notes on the same day and Bushra added that she reviews notes in the same week, and before the following lectures. These replies show that even though these students lack training in NT, they practice good NT skills before and after lectures which might be the reason why their notes are better and fuller than the rest of the students in the two groups. As for the three students' replies to the questionnaires, they also reflect good use of NT and listening skills. Below is a discussion of these students' notes and replies to some of the interviews and questionnaires questions. In order to show how the notes were marked, some parts of the notes of Noora from the control group and Bushra from the experimental group have been explained in detail.

1. Noora: It is clear from her notes of both the first and final lectures (see Appendix 14) that Noora has a good control over her NT skills despite the fact that she has had no training in NT and was not involved in the NT workshop given in this study. Page 2 of her notes of the final lecture was chosen for scrutiny here, for it includes most of the features discussed in this part.

   In the first lecture, Noora wrote the notes in 'outline' form; then in the final lecture, she used 'linear' notes to reproduce the lecture information. In both cases, she uses clear handwriting which makes it easy to follow the notes, which is something she reported always finding easy to do after lectures. Although she reported that she sometimes uses symbols and abbreviations in her notes, only one symbol appears in the notes of the final lecture. Page 2 of her notes of the final lecture includes the symbol '+'; also, in the same page we see the use of arrows to connect between the points in the notes. Both these features were not awarded separate points, for they do not stand for independent information units. They were merely used to connect other information units together.

   In addition, in the final lecture, for example, as seen in page 2 of her notes of the final lecture, it is clear that Noora attempted to write down every word as she reported doing in some occasions. She left enough space in the notes of both lectures for additions if needed even though she reported not to add to any of her notes after

lectures (see the space in page 2 of her notes of the final lecture next to the phrase 'search for them').

Noora finds it easy and beneficial to answer questions and take notes while listening to lectures, and she reported writing down new words and looking them up later in the dictionary. Noora reported that she never translates to Arabic to write down notes or takes notes without understanding. This seems true taking into consideration her proficiency in English and command over what she wrote in the notes. However, an Arabic word appears in page 4 of her notes of the final lecture to stand for 'the sound wave'; this indicates her use of Arabic to stand for the English expressions or words she misses. As for her impression of the presentation of the final lecture, Noora seemed unhappy with some aspects of the presentation such as the explanation of some points and the use of technical language; however, it is clear that she missed the summary of the lecture for she stated that she did not notice it maybe because she usually feels tired in the end of lectures as she reported.

In page 2 of her notes of the final lecture, Noora mostly used phrases to write down the information of the lecture; however, she was not awarded points for all of them. For example, the phrases 'speech something discovered by:', 'The speaker and what happened when he want to say anything', and 'put his hand in head' were not awarded points for they made no sense and were incomplete ideas. Other parts of that page included words and phrases which were awarded points. For instance, the following part of the page was awarded 6 points in total; the points were given for the underlined parts of the quotation:

> . In left hemispher → Broca + wernicks area name of two sintense (language. → They realize from studying experience of → studying the damage they realize that the language produce in left hemosphere .
> * (left) / → language production + listening

2. Mariam: In both the first and final lectures, Mariam used the 'outline+1fork' form to reproduce the lecture information in spite of the fact that she was introduced to other NT techniques in the NT workshop. However, it is clear from her notes, that Mariam, like Noora, has a good control over her NT skills despite the fact that she has had no training in NT other than the workshop. In both notes, she uses clear

handwriting which makes it easy to follow the notes, which is something she reported that she always finds easy to do after lectures. Like Noora above, Mariam also reported sometimes using symbols and abbreviations in notes, but only few appear in her notes. Mariam also depended on arrows to connect between the points in her notes. She did not attempt to write down every word as she reported sometimes doing, but she left enough space in both her notes for additions if needed as she reported always doing. Mariam finds it difficult to answer questions and take notes while listening to lectures and never takes notes without understanding what is being said. She writes down new words and looks them up later in the dictionary or asks lecturers for help. As for her impression of the presentation of the final lecture, Mariam seemed unhappy with the speed of delivery of the presentation as she clearly has a problem with following presentations delivered at high speed. Mariam reported that she translates to Arabic to write down notes which is evident in the notes of the first lecture where two Arabic words accompany two misspelled English words probably to make them easy to remember later when looking up their correct spelling (see Appendix 15 for a page from her notes).

3. Bushra: In the first lecture, Bushra used 'outline' form; then in the final lecture, after her involvement in the NT workshop, she changed her NT strategy by using 'outline+2fork+1tree' to reproduce the lecture information (see page 2 of her notes of the final lecture in Appendix 16).

Bushra's notes of the final lecture show that that she made great use of the NT workshop, for they included more details and explanations than what was found in the first lecture. Also, the following part from page 2 of her notes of the final lecture shows that while she took down more details, she did not repeat parts that are already in the notes:

- improve your weakness in listenning by listening
- ... ... speaking by speaking

However, in the same page, Bushra seems to have missed some details; for example, she wrote ' 3. critical level → analys'; for this part she was awarded only 1 point for the recognition of the information unit 'critical level', while '→ analys' was disregarded for this abbreviation of the word 'analysis' did not give information.

In the notes of the first lecture (see Appendix 16), Bushra uses clear handwriting, making it easy to follow the notes, which is something that she reported always finding easy to do after lectures, yet her handwriting is not as clear in the notes of the final lecture which might be the effect of the complexity of the topic discussed (see page 1 of her notes of the final lecture). The notes of the first lecture were also clearer for they represent a list of advice on how to improve the four skills, which was evidently easy for Bushra to write down in a neat way; on the other hand, the final lecture involved detailed explanations and names that needed more organization and sorting out. In both lecture notes, Bushra left space in the notes despite reporting that she never does.

Bushra reported that she sometimes uses symbols and abbreviations in notes, but only few appear in her notes. For instance, she uses the abbreviation 'L.L.' next to the expression 'linguistic left' in page 1 of her notes of the final lecture. She also used many arrows to connect between the points in her notes. In the first lecture, before her participation in the NT workshop in this study Bushra was able to cut down on what she wrote in some parts of the lecture even though she reported that she had not received training in NT before her involvement in this study. For instance, in page 2 of her notes of the first lecture, Bushra wrote: '250 / 1 minuts → good reader', using the symbol '/' to stand for the word 'per'. Each of the underlined units in this part was awarded 1 point.

Finally, Bushra reported that she writes down new words and looks them up later in the dictionary. As for her impression of the presentation of the final lecture, she reported that she did not hear a summary which might be due to her tiredness in the end of the lecture as she also reported.

In general, the above three students, Noora, Mariam and Bushra, have shown that a considerable number of the information units in the two lectures were easy enough to comprehend and write down giving a good basis against which the notes of the other students can be compared.

4.3.3.1.2 Medium Students

Tables 4.52 and 4.53 were studied carefully to select the students who represented the midway scorers in the sample. Because medium scorers were a mixture of male and female students, two students from each group, a male and a female student, were selected in order to study the effect of gender on the differences between the students' replies to the interviews and questionnaires questions and the notes they took.

The students selected from the control group are Sumaya and Khalid B., and those selected from the experimental group are Rashid and Abeer. In the interviews, all but Khalid B. reported taking notes in only 'some' lectures of useful information, while Khalid B. stated he takes notes in 'all' lectures. The useful information in lectures, Sumaya adds, helps her understand the lectures, while Rashid explains it helps make review easier. All four students reported using the notes to review before tests. Abeer adds that she reviews her notes before the following lectures. Rashid and Khalid B. also state that they look for main points and details in lectures. All four students expressed their need for training in NT. All but Khalid B. have not had any training in NT from lectures. Khalid's training was provided to him in the intensive programme where he was trained to use symbols and abbreviations in notes and was briefly introduced to different NT methods. Khalid B. reported that the NT training was useful but only lasted for 2 lectures. All four students reported preparing for only 'some' lectures by studying the textbook chapters assigned by the lecturers; Abeer adds that she 'sometimes' uses books from the library to complement the assigned chapters. When asked when do they review their notes, all but Abeer stated that they review the notes the same week and before tests; Abber stated that she also reviews her notes on the same day she takes them down. The following is a discussion of their replies to some of the questionnaire questions as compared with their notes:

1. Sumaya: In both the first and final lectures, Sumaya used 'outline' form to write her notes. In the notes of both lectures, she uses clear handwriting making it easy to follow the notes, which is something she reported always finding easy to do after lectures. The notes of both lectures are neat and organized. Sumaya reported that she sometimes uses symbols and abbreviations in notes, but only one appears in the notes of the first lecture. She used a few arrows to connect between the points in the notes of the final lecture and left spaces in notes despite reporting that she never does. Sumaya reported finding it

easy to answer questions and take notes while listening to lectures and writes down new words and looks them up later in the dictionary. As for her impression of the presentation of the final lecture, she reported many issues that expressed her dissatisfaction with the presentation in general such as timing, the links between the points, and even the explanation of some points. This is probably due to the fact that she usually gets tired in the middle of lectures, which might be why she was unable to follow the discussion.

2. Khalid B.: Like Sumaya, Khalid B. used 'outline' form to write his notes in both the first and final lectures. The fact that Khalid had been introduced to different NT methods in the intensive programme, as stated above, and that he chose to use outline form in both lectures shows that this type of NT technique is his preference rather than simply the only way for him to reproduce the lecture material. Khalid is the only student in the control group who had had any form of training in NT, yet this training did not have any positive effect on the quality of the notes he took in both lectures. Khalid's notes appear the same as those of other students' who had not had any training in NT. In the notes of both lectures, Khalid B. uses clear handwriting making it easy to follow the notes, which is something he reported always finding easy to do after lectures. He reported that he sometimes uses symbols and abbreviations in notes; only two appear in the notes of the first lecture. This comes in spite of the fact that he reported having had training in using symbols and abbreviations in notes in the interviews, discussed above. Khalid B. left spaces in notes despite reporting that he never does. He reported finding it easy to take notes while listening to lectures and writes down new words and looks them up later in the dictionary. As for his impression of the presentation of the final lecture, he reported, like Sumaya, that he was dissatisfied with the such issues as timing, the links between the points, and even the explanation of some points. He argued that the lecturer assumed too much knowledge on the part of the students and gave little time for copying and NT.
3. Rashid: Like Sumaya and Khalid B., Rashid used 'outline' form to write his notes in both the first and final lectures despite the fact that he was involved in NT workshop given to his group to introduce different NT techniques. The notes of both lectures are very neat. Rashid uses clear handwriting which makes it easy to follow his notes, as he

reported always finding easy to do. He reported that he sometimes uses symbols and abbreviations in notes, but only two appear in the notes of the first lecture. Rashid did not leave spaces in his notes just as he stated. He also mentioned that he only sometimes finds it easy to take notes and answer questions while listening to lectures. He writes down new words and looks them up later in the dictionary. As for his impression of the presentation of the final lecture, Rashid reported the absence of examples, and like Kahlid B., argued that the lecturer assumed too much knowledge on the students' part.

4. Abeer: Abeer, like Bushra, changed her note taking strategy in the final lecture after the NT workshop she took with her group as part of this study. In the first lecture, Abeer used 'outline' notes; then, in the final lecture, she used 'outline+1 fork' notes to reproduce the lecture material. Abeer uses clear handwriting making it easy to follow the notes, which is something she reported always finding easy to do after lectures. The notes are very neat; they do not need to be rewritten as she reported she always does after lectures. She reported that she sometimes uses symbols and abbreviations in notes, but only few appear in the notes. Although Abeer stated that she does not translate into Arabic when writing notes, a whole phrase appears in the notes of the final lecture to explain a word (see Appendix 17 for a page from her notes) which means that she does in fact use Arabic in notes. She also reported finding it difficult to take notes while listening to lectures. She writes down new words and looks them up later in the dictionary. As for her impression of the presentation of the final lecture, Abeer had many criticisms; she argued that the lecture was not organized and that it contained too much technical language. She also argued that the lecturer assumed too much knowledge on the part of the students. These views might be the result of tiredness, for she reported feeling tired in the middle of lectures.

4.3.3.1.3 Lowest Students

The student selected from the control group is Hamed, and that selected from the experimental group is Hilal. In the interviews, both students reported taking notes in only 'some' lectures of only new information to help them understand the lectures and reviews them before tests. Both students stated that they had not had any training in NT from lectures; yet, only Hilal expressed his need for such training, while Hamed stated that he

does not need such training. Hamed stated that he prepares for only 'some' lectures by studying the textbook chapters assigned by the lecturers, whereas Hilal stated that he prepares for 'all' lectures. While Hamed only 'sometimes' reviews notes before tests, Hilal reviews his notes on the same day and before tests. In general, it seems that Hilal has a more positive attitude towards his study skills as a whole, while Hamed is not keen on developing them. The following is a discussion of their replies to some of the questionnaire questions as compared with their notes:

1. Hamed: Hamed used 'outline' form to write his notes in both the first and final lectures. The notes of the first lecture are more detailed than those of the final one. Hamed uses clear handwriting which makes it easy to follow the notes, something he reported always finding easy to do after lectures. He mentioned that he sometimes uses symbols and abbreviations in notes, but only one appears in the notes of the final lecture. Hamed left spaces in his notes-something he stated he never does. He also reported finding it easy to answer questions while listening to lectures, but he reported finding NT while listening difficult. He writes down new words and looks them up later in the dictionary. Hamed also reported that he usually feels tired in the beginning of lectures but then gets active as lectures progress which might explain why his notes of both lectures are few in the beginning of both lectures but become more detailed as the lectures proceeded. As for his impression of the presentation of the final lecture, Hamed had many criticisms. He reported that the lecture was not organized and had problems with timing and speed of delivery.
2. Hilal: He used 'outline+1fork' notes in the first lecture and changed his NT strategy by using 'linear' notes in the final lecture after the introduction of the NT workshop. Hilal uses clear handwriting which makes it easy to follow the notes. He reported that he sometimes uses symbols and abbreviations in notes, but only one appears in the notes of the first lecture. Hilal left spaces in his notes, something he stated he never does. He also reported finding it easy to take notes in only easy lectures. He writes down new words and looks them up later in the dictionary. Hilal also stated that he always translates into Arabic in order to take notes, but no trace of Arabic appears in his notes. As for his impression of the presentation of the final lecture, he

complained that he did not have enough time for copying the visuals from the board and NT.

4.3.3.2 Non-Note Takers

The student selected from the control group is Samer, and that selected from the experimental group is Khlood. In the interviews, Samer stated that he takes notes in only 'some' lectures of only useful information and reviews them before tests or the following lectures. He expressed his need for training in NT, for he has not had any training. Samer reported preparing for only 'some' lectures by studying the textbook chapters assigned by the lecturers. As for Khlood, she stated that she does not take notes in lectures because she is 'not used to it'. She explained that she can not concentrate on listening to lectures while writing which is why she only listens in lectures. She believes that textbooks provide more useful information than lectures which is why she depends on books when studying for tests. In spite of this, Khlood expressed her need for training in NT. The fact that she does not have the ability to concentrate on lecturers while writing and that she expressed her need for training in NT show that she understands the importance of NT and needs training to develop her listening and NT skills. However, Khlood seems to have convinced herself that books are more useful which is why she did not try to take notes in this study but rather doodled a few words in the first lecture (see Appendix 19 for a page from her notes) and merely listened in the final lecture. It is surprising that Khlood has had training in NT from lectures in the intensive programme where she was introduced to using abbreviations in notes in only one lecture. Khlood stated that although this training was useful, it was not enough. Khlood also mentioned that she prepares for only 'some' lectures by mainly studying the textbook chapters assigned by the lecturers and sometimes using books from the library. Finally, she gave a surprising comment saying that she 'sometimes reviews notes before tests'! This seems to contradict all the answers discussed above, but it might be an indication that she does in fact take notes occasionally.

The following are Samer and Khlood's replies to some of the questionnaire questions as compared with their notes:

1. Samer: Samer used 'linear' notes in the first lecture then merely copied the visuals from the board in the final lecture. Samer uses clear handwriting which makes it easy to

follow the notes. Although he reported always trying to write down every word, his notes are very brief. He also stated that he never takes notes without understanding which might be one of the reasons why his notes are so brief. He also reported finding it easy to take notes and answer questions in only easy lectures. Samer mentioned as well that he usually feels tired in the beginning of afternoon lectures and end of morning lectures and that high speed of delivery negatively affects comprehension, whereas slow speed makes lectures boring. He writes down new words and looks them up later in the dictionary. As for his impression of the presentation of the final lecture, Samer had many criticisms. He complained about almost all the aspects of the presentation such as timing, the unclear links, absence of examples, etc. See Appendix 18 for a page from Samer's notes of the final lecture.

2. Khlood: Khlood merely wrote a few words in the first lecture then wrote nothing in the final lecture. She said that most of the items in the questionnaires do not apply to her. Khlood reported that she always daydreams and only sometimes knows what the lectures are about. She stated that she never uses symbols and abbreviations or tries to write down every word she hears. She argued that she finds it easy to listen and answer questions but not take notes for it distracts her from what the lecturers say. She reported feeling tired when lectures are boring. Although she mentioned that she writes down new words, she did not write any of the new technical terms presented in the final lecture. As for her impression of the presentation of the final lecture, Khlood also had many criticisms. She did not feel the lecturer gave enough time for copying and NT which is something that appears contradictory to what she did in both lectures by deciding not to take notes or copy the board.

As stated in 4.3.1.1.1.2 above, students of the experimental group changed their NT strategies in the final lecture after taking part in the NT workshop. From the sample selected above, Bushra, Abeer and Hilal, all from the experimental group, changed their NT techniques in the final lecture, while the others did not. It also seems from the above discussion of the students' replies to questionnaire 4, Appendix 6, that the weaker the student the more he/she puts the blame on the lecturer for his/her inability to follow the lecture.

CHAPTER FIVE
CONCLUSION

This chapter comprises four sections: the first three focus on some of the important findings drawn from the interviews and questionnaires administered in this study about the three main aspects of NT studied from the students' point of view; namely: the purpose of NT, the methods they use to take notes, and the factors affecting NT. The fourth section is conclusions drawn from the study of students' notes regarding the effectiveness of the notes in reproducing the important information of the lectures the students attended.

5.1 Why do Omani EFL Students Take Notes?

Despite the fact that only seven out of the 28 students involved in this study had received some form of training in NT before the beginning of this study, all the students had a clear reason as to why they take notes. Among the replies given by the students, most of the sample reported taking notes to write useful or new information and vocabulary items as well as writing down main ideas and details from lectures. Some also stated that notes enhance comprehension of lectures and facilitates later review for tests and assignments. Others also stated that they take notes in lectures they had not prepared for or when asked to do so. Most of these reasons are in agreement with the most common functions of NT that Ngarari (1990: 8) reports from the literature. However, the fact that the sample was able to provide straight answers regarding this aspect without any prompting from the researcher does not agree with Ngarari's argument that students find it hard to state why they take notes.

The fact that the sample readily reported different purposes for taking notes in lectures even without having had enough training in NT indicates that there is a general awareness of the importance of NT in spite of the little attention given to it in the listening courses the students are taking. As far as the sample involved in this study is concerned, who had different teachers in the prerequisite courses to the one in which this study was administered, the neglect of this skill is the responsibility of the teachers who were provided with a NT course that they failed to teach. There also seems to be awareness of the significance of preparing for lectures and reviewing lecture notes. Most of the sample reported reviewing

notes before test and in the same week they were taken down, and a few students reported reviewing notes on the same day or before the following lectures. Thus, the students are aware that NT in lectures is a purposeful and useful activity for their development in their field of study.

5.2 How do Omani EFL Students Take Notes?

Although out of the 28 students involved in this study only seven had received some form of training in NT before the beginning of this study, which was quite surprising especially that NT is an integral part of their curriculum, they were all able to produce some form of notes. In the first lecture, before any training was introduced to the experimental group, both the control and experimental groups produced notes in the outline or linear form, and some students simply copied the board. After training was introduced to the experimental group, a change and improvement in the students' NT strategies was witnessed, and their notes became generally clearer and more diverse in form. New combinations of NT techniques appeared in their notes of the final lecture, e.g. 'outline+tree+pattern' and 'outline+fork+tree'. The use of these two combinations of NT techniques is clearly the effect of the NT workshop given to this group in which they were introduced to different NT techniques. On the other hand, the NT strategies of the control group, which was not involved in the NT training workshop, witnessed no change in form. This shows that training as simple as a two-hour workshop can give students' the chance to do more with the lecture material than simply write it in outline or linear forms. This answers the second research question of this study regarding whether or not the training that Omani EFL learners received in NT is effective. If the two groups had received good training in NT before their involvement in this study, their notes would have been more advanced in the sense that they would have contained less complete sentences and more abbreviations and symbols than they did and the format of the notes would have had a clearer structure and layout through using clearly indented outlines or pattern notes rather than unconnected sentences and unstructured connections.

In general, a high percentage of the sample seems to be aware of some of the basic requirements for successful LC and NT. More than half of the sample reported that they know the lecture topics before lectures. As for NT skills, most of the sample seems to know

the importance of using symbols and abbreviations in notes but only sometimes make use of this NT skill when taking notes. Also, about a half of the sample stated they always make sense of their notes after lectures, and most stated they can read their handwriting after lectures. Half of the sample reported comparing notes after lectures, and more than half of the sample reported rewriting the notes neatly after lectures. These findings show that even with no or limited training in NT, students are unconsciously performing some of the basic steps given for NT in lectures, as discussed in 2.2.2-2.2.2.3 above.

On the other hand, while there seems to be an awareness of the basic requirements and steps of NT, the sample seems to have poor LC and NT skills. More than half of the sample showed that they make an effort to take down everything said in lectures, which is an indication of poor NT and LC skills, for taking down everything being said reflects a disability to filter and select the important material in the lecture. As discussed in 2.2.2 above, the selection of what the note taker thinks is relevant for his purpose is the second stage in the NT process (Kennedy and Bolitho, 1984: 91-92).

Another indication of the students' poor NT skills is reflected in the fact that half of the sample does not leave space in their notes for further additions. This is clearly one of the effects of poor training in NT, for leaving space in notes is beneficial for later additions, as Barrass (1984: 49) stresses (discussed in 2.2.3.3 above). In addition, more than half of the sample stated that they never add information to notes after lectures, which is obviously why most students do not leave space in their notes.

As far as LC is concerned, more than half of the sample reported translating some parts of the information of the lecture into Arabic in order to write it down. The use of Arabic in notes facilitates NT and signifies the sample's weak LC skills and inability to solely depend on English when taking down the notes. However, the fact that most of the notes are in English shows that Arabic is merely used when there is uncertainty regarding the spelling or meaning of some words, as shown in Appendix 17 where the student gave the full meaning in Arabic of the misspelled English word 'Felter' of 'Filter'.

Furthermore, most of the students reported sometimes daydreaming in lectures, which is normal taking in consideration the occasional breakdown in comprehension that may cause their minds to wonder off. When a breakdown of comprehension occurs, most of the sample stated that they feel anxious about staying on track; this, in turn, affects NT

negatively, for comprehension is one of the key steps in NT, as discussed in 2.2.2. In general, a big percentage of the sample reported not taking notes unless they understand what is said, which signifies their awareness of the importance of LC in NT.

5.3 What Affects Omani EFL Students' Note Taking?

The nature of the cognitive processes that Omani EFL learners perform while listening can be understood by examining their responses to the set of questions about the factors that affect NT. Most of the students' complaints about why they find it difficult to listen and take notes concern the material and the lecturers. Clear pronunciation, having background knowledge about the lecture topic, and having interest in the lecture topic are all 'very important-important' aspects for most of the sample; in contrast, having knowledge of the lecturers' background culture is of 'medium importance-unimportant' to the sample. The former three replies go in line with what is said in the literature about the importance of these aspects in LC, and subsequently NT.

The students stated that they need lecturers to be loud and clear in class, for this helps them concentrate on important points and enhances the comprehension of lectures. This agrees with Treisman's (1964) argument regarding the significant effect of voice pitch on listening especially in the types of tasks that require selective listening (Norman, 1976: 26), discussed in 2.2.5.1.1 above. Barrass (1984: 45) and Chambers and Northedge (1997: 83) also stress the importance of voice and voice variation in helping students select and write the main points in lectures, as mentioned in 2.2.5.1.1. In addition, more than half of the sample pointed out that clear pronunciation is important even at slow speed. This brings us to another factor on which the students gave an important comment, i.e. the speed at which the material is delivered. 71.42 % of the sample stated that high speed of delivery has a negative effect on comprehension by making it difficult to concentrate in lectures. This agrees with Paulston and Bruder's (1976: 128) emphasis on the need for teachers to start the LC course by giving the students a simplified form of the language at a slow speed, gradually moving to more difficult forms at quicker speeds (see also 2.2.5.1.3).

Most of the sample owe their loss of interest in lectures to the difficulty of the material in lectures and to lecturers' poor teaching techniques. This agrees with Widdowson's (1978: 67) and Henning's (1966: 34-35) observations in this respect (see 2.2.5.2.2 above). As for

loss of attention, students attribute it to internal factors or disturbance caused by their colleagues which agrees with what Dean and Bryson (1961: 461-462) state regarding the effect of classroom environment on the listener. Also, more than half of the sample reported feeling tired at the end of lectures which is only natural taking into consideration that the lectures the sample attend at their university are an hour and forty minutes long. It is normal to find listening and paying attention in such long lectures difficult especially for EFL learners since these two activities require a lot of effort. Palmer and Pope (1984: 85) state that 'the brain performs best for about twenty to thirty-five minutes at a time' which explains the importance of the effect of attention span for listeners (see also Rowntree's, 1988: 117 and Marshall and Rowland's, 1998: 157; 1993: 135 figures for the maximum concentration span in lectures in 2.2.5.2.2). However, even with the occasional loss of attention, half of the sample reported finding it easy to do more than one thing at the same time.

Co-education, which was not present in the samples' high school level, was found to be a problem by most of the sample for lack of a relaxed setting in which they can participate actively in front of the opposite gender. Despite the problems caused by co-education as far as the students are concerned, half the sample finds no difference between male and female lecturers. Another difference between high school and university level is that there is more information in lectures delivered at the university as opposed to those delivered at school, as more than half of the sample stated.

Most of the sample mentioned that they prefer sitting in the front or middle rows. This means that these students are 'keen' on listening to what their lecturers say, for sitting close to lecturers ensures minimum distractions and eventually enhances comprehension as Maddox (1963: 100-101) states (mentioned in 2.2.5.2.2 above).

As far as dealing with new words is concerned, most of the students reported writing such words down, even when the correct spelling is not provided by the lecturers, and then looking them up in the dictionary. Since spelling is a problem here, many students reported using Arabic in their notes, thus making use of their mother tongue to help them take down and clarify the new material in their notes.

Since LC is the initial step for NT, the factors that affect NT and LC are very similar. Thus, for learners to take successful notes in lectures they must have a good mastery of the

language in which the lectures are presented. The complex set of decisions performed by the learners while taking notes in lectures should therefore not be taken for granted by lecturers, for learners can be overwhelmed with the amount of information they receive to the extent that they entirely stop perceiving anything and tune out of the lectures. Yet lecturers on their part can only work with what they have and build on the students' knowledge however simple it may be in order to present the material successfully. Therefore, if any improvement is to be made both students and lecturers need to work on what they bring to the classroom situation.

5.4 Are Omani EFL Students' Notes Effective?

Based on Hartley and Cameron's (1967) measure of notes effectiveness, i.e. that 'one-third' of the information in lectures is a 'reasonable' and 'generous' amount to find in notes, we can conclude that a good number of students were able to take effective notes in the lectures delivered in this study. This answers the first research question in this investigation; namely, whether Omani EFL students' lecture notes are effective representations of the information in lectures. However, since the sample involved in this investigation is small, this finding can only be restricted to this sample.

The sample involved in this study was able to reproduce important parts of the lectures delivered to them even when they had had little training in NT or no training at all. The fact that some students wrote more notes than others can only be attributed to the different purposes and background knowledge each student possesses. That is to say, one student might need to write more information from the lecture than the other who might simply jot down a few ideas and details. Also, as far as this sample is concerned, it was found that female students produced more complete (or adequate) notes than male students, which agrees with other research findings in this respect.

5.5 Limitations of this Study

It is necessary to mention here that the expression 'effective notes' used in this study is adapted from Hartley and Cameron's (1967) inspiring investigation of the efficiency of lecturing. This term is limited to measuring the students' abilities in reproducing the useful information units of the lecture in an understandable and useable form in their notes; it does

not mean that there is only one good set of notes for any given lecture and for all students. There is, therefore, a difference between 'good NT' and 'good notes'; the former is a prerequisite for the latter. Good NT practices can produce good notes. As discussed in 2.2.3 above, Palmer and Pope (1984: 87) explain that 'Good note-taking combines the recording of useful information with alert thinking', and Salimbene (1985: 82) states that good NT involves 'listening, comprehending, and writing during the lecture' which save time and promote learning. Badger et al. (2001: 412) report students arguing that 'good notes' are tidy, legible, and include the important points of the lecture.

As far as the findings of this study are concerned, since the number of subjects was only 28 students, it is important to limit the findings reached to these individual students as representatives of students of the same level of university education. Thus, it is difficult to say at this point if all Omani students in the university level take effective notes. It is also important to limit these findings to EFL learners rather than students from other areas of specialization. Hence, to reach an understanding of how Omani university students take notes, it is important to carry out an investigation involving students from other fields of study using a bigger sample from each field.

Also, the idea that training in NT is crucial for the development in NT in lectures needs to be investigated further to reach more conclusive findings regarding the type of NT aspects that need to be developed and the amount of training needed for students of different specializations. It is important to carry out investigations in these issues before designing NT training programmes or workshops in order to guarantee that the students would gain the full benefit of such training.

5.6 Suggestions and Recommendations

The findings of this study suggest that it is relatively easy to investigate the problems that Omani EFL learners face when listening to English, for they appear to be aware of their weaknesses and are willing to discuss them to find remedial steps to improve the curricula in Oman. Even though some schools and universities provide their students with textbooks that develop LC and NT skills, these two skills are not taken seriously by teachers for two main reasons: the lack of training and suitable equipment to teach these skills and the sub-skills

they involve and the lack of time allotted for the practice of these skills in the curricula in Oman.

The findings reached in this investigation shed light on some of the important aspects of NT in lectures. Omani students need to be encouraged to become autonomous learners; this should start with good training in study skills, especially NT. For them to reach this level of independence at the university level, they need to be trained to take notes at an early age in schools. This conforms to what Ngarari (1990: 67) concludes regarding the NT training need by the African students she studied in her experiment, as discussed in 2.3.2. As discussed in 5.5 above, it is important to provide training that meets the needs and abilities of the students involved; this might require tailoring the NT training programmes for the students depending on their fields of study.

Therefore, EFL teachers and course designers at both the university and school levels in Oman need to give NT and LC the attention they deserve as overlapping skills directly relevant to the recognition and understanding of the language and subsequently the full comprehension of lectures. The interrelationship between the sub-skill of LC and those of NT must be made explicit to both students and lecturers, for as Heaton (1975: 20) states, the sub-skills of NT while listening constitutes a difficult challenge for the foreign learner for they involve handling both verbal and non-verbal signals.

In conclusion, NT must be viewed as a skill (or sub-skill) dependent on LC, for the mastery of the latter helps perform the former better. NT as both an exercise and a skill should be developed and taught in corporation with the skills of listening and writing. The processes that Omani EFL learners perform while NT in lectures and the problems they face with NT must be widely discussed to help them improve their NT as well as LC skills. The time has come for teachers and course designers in Oman to reconsider the importance of NT, develop it, and stop blaming the students for taking bad notes.

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APPENDIX 1

استبيان استطلاعي لدراسة
مشكلات الفهم عند الإصغاء للغة الإنجليزية لدى طلاب اللغة الإنجليزية

التخصص:_____
الجنس: ذكر_____ ؛ أنثى_____
السنة الدراسية:_____

يهدف هذا الاستبيان إلى استطلاع آرائكم حول المشكلات التي تواجه الطالب الجامعي العربي المتخصص في اللغة الإنجليزية في ما يفهمه عند الإصغاء للغة الإنجليزية. على ضوء أجوبتكم على الأسئلة التالية سيتم تصميم الاستبيان الدقيق لهذه الدراسة. الرجاء الإجابة بصورة وافية ومختصرة.

1. أذكر اكبر عدد للصعوبات التي تواجهك عند الإصغاء للغة الإنجليزية:

_____ _____
_____ _____
_____ _____
_____ _____

2. ما هو رأيك بالمنهاج الدراسي بفهم الإصغاء الذي تلقيته خلال دراستك للغة الإنجليزية؟

_____

_____

ما هو العدد التقريبي للساعات الدراسية التي تقضيها في الإصغاء للغة الإنجليزية؟

ا. داخل الفصل : _____

ب. خارج الفصل: _____

شكرا على حسن تعاونكم
أ. آلاء محمد المصلّى, مركز اللغات بجامعة السلطان قابوس

APPENDIX 2

QUESTIONNAIRE
LISTENING COMPREHESION AND NOTE TAKING

The first part of this questionnaire aims to identify the problems that Arab learners of English face while listening to lectures or taped texts/conversations. The second part aims to identify the way Arab learners of English take notes while listening, and the problems they face in the process. Your answers will only be used for the purpose of a PhD study, which will help develop a better understanding of your problems and help improve the teaching of listening comprehension for Arab learners of English. Please make sure you think very carefully before you answer the questions in this questionnaire.

Part 1: Problems in Listening Comprehension

In this part, you are given a set of factors that affect the comprehension of what you listen to in English. Some are related to your performance in listening exercises in class, while others affect the way you react in everyday conversations in English in different contexts. Give each item a grade from 1-5 according to its importance to you by circling the appropriate number next to each item. Numbers 1-5 refer to the following:

1. Completely unimportant
2. Unimportant
3. Medium Importance
4. Important
5. Very Important

	Factors Related to the Speaker (Live Lectures)					
1	Unclear pronunciation of some words	1	2	3	4	5
2	Unclear pronunciation of parts of words	1	2	3	4	5
3	High speed of delivery	1	2	3	4	5
4	Unclear/Unpleasant voices	1	2	3	4	5
5	Different accents	1	2	3	4	5
6	New words	1	2	3	4	5
7	Gender of the speaker	1	2	3	4	5
8	Use of colloquial language	1	2	3	4	5
9	The level of difficulty of the material spoken	1	2	3	4	5
10	Attention on exercises while listening	1	2	3	4	5
11	Un-relaxed atmosphere	1	2	3	4	5
12	Relationship with the speaker	1	2	3	4	5
13	Distance of the speaker to the listener	1	2	3	4	5
14	Unsuitable room for clear listening	1	2	3	4	5

	Factors Related to the Speaker (Taped Texts/Conversations)					
1	Unclear recordings	1	2	3	4	5
2	Distractions such as background music on tape	1	2	3	4	5
3	Not repeating tape enough times	1	2	3	4	5
4	No face-to-face interaction with speaker on tape	1	2	3	4	5
5	Non-Straightforward questions	1	2	3	4	5
6	Not enough exercises in class	1	2	3	4	5
7	Not enough time to read questions after listening	1	2	3	4	5
8	Not used to/No training in listening to the English language	1	2	3	4	5
9	Questions not organized as material appears on tape	1	2	3	4	5

	Factors Related to the Listener					
1	Unknown topic/Knowledge about the topic	1	2	3	4	5
2	Lack of attention	1	2	3	4	5
3	Weak memory	1	2	3	4	5
4	Tiredness and exhaustion	1	2	3	4	5
5	Having interest in what is said	1	2	3	4	5
6	General world knowledge	1	2	3	4	5
7	Cultural knowledge	1	2	3	4	5

Part 2: Problems in Note Taking

Please answer the following questions by circling either Yes/No.

	Listening and Note Taking		
1	Have you received training in note taking?	Yes	No
2	If you chose (Yes), do you think the training was useful to you?	Yes	No
3	Do you think learning note taking is useful for you in English classes?	Yes	No
4	Do you think note taking in English is the same process as that in Arabic?	Yes	No
5	Do you write every word you hear?	Yes	No
6	Do you translate what you hear to Arabic in order to note it down?	Yes	No
7	Do you need to understand what is being said to take notes?	Yes	No
8	Do you take notes in lectures delivered in Arabic?	Yes	No
9	Do you use symbols when you write your notes, e.g. & or + for 'and', and so on?	Yes	No
10	Do you review your notes immediately after lectures?	Yes	No
11	Do you add anything to your notes such as additional explanation from books?	Yes	No
12	Do you compare notes with other students?	Yes	No

Thank you for your cooperation. Miss Alaa M. Abbas Al-Musalli, Language Center/SQU.

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APPENDIX 3

Questionnaire No. 1

The following are questions that will help me understand your **Note Taking method in lectures delivered in English**. The answers you give will only be used for the purpose of a PhD study. Please make sure you think very carefully before you answer the questions in this questionnaire. Answer the questions either in English or Arabic by **underlining** (**ALWAYS**, **SOMETIMES** or **NEVER**) or (دائماً ، في بعض الاحيان او لا أبداً) . Answers to these questions will be compared to the notes you take in the course to give me a good idea on your note taking method, so please write your name below. Any answer you give will not affect your grade in this course. This paragraph has just been explained to you in Arabic, but please ask for additional explanation if needed.

Student's name: _____.

1. Do you know the topics of lectures before attending them? ALWAYS / SOMETIMES / NEVER
   هل تعرف بمواضيع المحاضرات قبل حضورها؟ دائماً \ في بعض الأحيان \ لا أبداً
2. Do you use symbols or abbreviations when you write down notes during lectures? ALWAYS / SOMETIMES / NEVER
   هل تستخدم الرموز والاختصارات عند كتابة الملاحظات في المحاضرات؟ دائماً \ في بعض الأحيان \ لا أبداً
3. Do you try to write down every word you hear? ALWAYS / SOMETIMES / NEVER
   هل تحاول كتابة كل كلمة تسمعها؟ دائماً \ في بعض الأحيان \ لا أبداً
4. Do you leave space in your notes when you write them to add further information after lectures? ALWAYS / SOMETIMES / NEVER
   هل تترك فراغاً في ملاحظاتك عند كتابتها لغرض اضافة معلومات اضافية بعد المحاضرات؟ دائماً \ في بعض الأحيان \ لا أبداً
5. Do you translate the information to Arabic in order to write it down? ALWAYS / SOMETIMES / NEVER
   هل تقوم بترجمة المعلومات الى اللغة العربية ليتسنى لك كتابتها؟ دائماً \ في بعض الأحيان \ لا أبداً
6. Can you take notes without understanding what is being said? ALWAYS / SOMETIMES / NEVER
   هل يمكنك اخذ الملاحظات بدون فهم ما يقال؟ دائماً \ في بعض الأحيان \ لا أبداً
7. Do you daydream in lectures? ALWAYS / SOMETIMES / NEVER
   هل يشرد ذهنك في المحاضرات؟ دائماً \ في بعض الأحيان \ لا أبداً
8. Do you feel anxious when you find it difficult to understand what lecturers say? ALWAYS / SOMETIMES / NEVER
   هل تقلق عندما تجد صعوبة في فهم ما يقوله المحاضرون؟ دائماً \ في بعض الأحيان \ لا أبداً
9. Do you find it easy to make sense of your notes after lectures? ALWAYS / SOMETIMES / NEVER
   هل تجد فهم ملاحظاتك سهلاً بعد المحاضرات؟ دائماً \ في بعض الأحيان \ لا أبداً
10. Can you read your handwriting after lectures? ALWAYS / SOMETIMES / NEVER
    هل تستطيع قراءة خطك بعد المحاضرات؟ دائماً \ في بعض الأحيان \ لا أبداً
11. After lectures, do you add information to your notes from books or other sources? ALWAYS / SOMETIMES / NEVER
    بعد المحاضرات ، هل تضيف معلومات الى ملاحظاتك من كتب او مصادر اخرى؟ دائماً \ في بعض الأحيان \ لا أبداً
12. Do you compare notes with other students after lectures? ALWAYS / SOMETIMES / NEVER
    هل تقارن ملاحظاتك بملاحظات طلاب آخرين بعد المحاضرات؟ دائماً \ في بعض الأحيان \ لا أبداً
13. Do you rewrite your notes neatly when you review them after lectures? ALWAYS / SOMETIMES / NEVER
    هل تعيد كتابة ملاحظاتك بترتيب عند مراجعتها بعد المحاضرات؟ دائماً \ في بعض الأحيان \ لا أبداً

APPENDIX 4

Questionnaire No. 2

The following are questions that will help me understand **the factors that affect the way you take notes in lectures delivered in English**. The answers you give will only be used for the purpose of a PhD study. Please make sure you think very carefully before you answer the questions in this questionnaire. Answer the questions by **putting a tick** (علامة صح) under the level of importance you give to the items in each question. Answers to these questions will be compared to the notes you take in the course to give me a good idea on the factors that affect the way you take notes, so please write your name below. Any answer you give will not affect your grade in this course. This paragraph has just been explained to you in Arabic, but please ask for additional explanation if needed.

Student's name: _____.

	Put a tick under the level of importance you give to each of the following: ضع علامة صح تحت مستوى الاهمية الذي تعطيه لكل من الاسئلة التالية	Completely Unimportant غير مهم ابدا	Unimportant غير مهم	Medium Importance مهم لحد ما	Important مهم	Very Important مهم جدا
1	How important is the lecturers' clear pronunciation of words in lectures? ما مدى أهمية اللفض الواضح للكلمات في المحاضرات من قبل المحاضرين؟					
2	How important is having background knowledge about the topics of lectures to be able to understand them? In other words, how important is knowing something about the topics of lectures before attending them? ما مدى اهمية معرفة معلومات خلفية عن مواضيع المحاضرات لفهمها؟ بمعنى اخر، ما مدى اهمية معرفة شيئ عن مواضيع المحاضرات قبل حضورها؟					
3	How important is having an interest in the topics discussed in lectures in order to understand them? ما أهمية وجود اهتمام بالمواضيع التي تناقش في المحاضرات لكي تفهمها؟					
4	How important is it to know something about the lecturers' background culture to be able to understand them? ما أهمية معرفة شيئ عن تراث المحاضرين لكي يسهل عليك فهمهم؟					

APPENDIX 5

Questionnaire No. 3

The following are questions that will help me understand **the factors that affect the way you take notes in lectures delivered in English.** The answers you give will only be used for the purpose of a PhD study. Please make sure you think very carefully before you answer the questions in this questionnaire. **Answer the questions using short answers in English or Arabic. Please DO NOT answer with Yes or No or give one-word answers; rather, give specific points or reasons for your answers.** Answers to these questions will be compared to the notes you take in class to give me a good idea about the factors that affect the way you take notes, so please write your name below. Any answer you give will not affect your grade in this course. Ask for explanation if needed.

Student's name: _____.

1. Do you prefer lecturers who deliver their lectures using a loud voice? هل تفضل المحاضرين الذين يلقون المحاضرات بصوت عال؟

2. Do you find it easy to do more than one thing at the same time while you listen to lectures, such as taking notes or answering questions?
هل تجد عمل اكثر من شي وقت اصغاءك للمحاضرات مثل اخذ الملاحظات او الاجابة على الاسئلة في نفس الوقت سهلا؟

3. What makes you lose interest in lectures? ما الذي يفقدك الاهتمام في المحاضرات؟

4. What makes your attention to what lecturers say fade? ما الذي يجعل تركيزك لما يقوله المحاضرون يتلاشى؟

5. Do you feel relaxed in a co-education setting? Does such a setting affect the way you behave in class, such as NT or asking questions?
هل تحس بالراحة في صف مختلط؟ هل يؤثر مثل هذا الجو على طريقة تصرفك في الصف، مثل اخذ الملاحظات او طرح الاسئلة؟

6. Where do you prefer to sit in class: in the front, middle, or back row? اين تفضل الجلوس في الصف: في الامام، في الوسط ام في المؤخرة؟

7. Is there a difference between the way you used to listen to lectures in high school and the way you listen to lectures now?
هل يوجد اختلاف بين طريقة اصغائك للمحاضرات في الثانوية و طريقة اصغائك للمحاضرات الان؟

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8. When do you usually feel tired in lectures – in the beginning, middle, or end of lectures?
متى تحس بالتعب عادة في المحاضرات - في بداية، وسط ام نهاية المحاضرات؟

---

9. Does the speed of delivery that lecturers use to deliver the lectures affect on how you understand what they say?
هل تؤثر سرعة القاء بعض المحاضرين للمحاضرات على فهمك لما يقولونه؟

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10. Do you prefer male or female lecturers?
هل تفضل المحاضرين الرجال ام النساء؟

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11. Is clear pronunciation more important to you than slow speed of delivery? In other words, would you find it hard to understand someone speaking clearly but at a high speed?
هل النطق الواضح اهم لك من الالقاء البطيء؟ بمعنى اخر، هل تجد صعوبة في فهم شخص يتكلم بوضوح ولكن بسرعة؟

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12. How do you deal with new words when you take notes? Do you write them down even if you do not know what they mean?
كيف تتعامل مع الكلمات الجديدة عند اخذ الملاحظات؟ هل تكتبها حتى لو لم تفهم معناها؟

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13. Do you take notes in lectures delivered in Arabic? If so, is it different from the method you use to take notes in lectures delivered in English?
هل تاخذ ملاحظات في المحاضرات الملقاة باللغة العربية؟ اذا كنت تفعل، هل تختلف الطريقة التي تستخدمها لاخذ الملاحظات في المحاضرات الملقاة باللغة العربية عن التي تستخدمها لاخذ الملاحظات في المحاضرات الملقاة باللغة الانكليزية؟

APPENDIX 6

Questionnaire No. 4

The following are questions that ask you to **evaluate how I delivered today's lecture**. The answers you give will only be used for the purpose of a PhD study. Please make sure you think very carefully before you answer the questions. Please answer these questions by **underlining either True or False**. Answers to these questions will be compared to the notes you just took in the lecture to give me a good idea on my lecturing and your note taking weaknesses. Please write your name below. Any answer you give will not affect your grade in this course. Ask for explanation if needed.

Student's name: _____.

1.	I do not organize my lecture clearly.	لا ارتب المحاضرة بوضوح.	True	False
2.	I do not stress the major points of the lecture clearly.	لا اوكدعلى النقاط المهمة في المحاضرة بوضوح.	True	False
3.	I forgot to provide examples.	نسيت اعطاء امثلة.	True	False
4.	I don't start and finish on time	لا ابدء و انتهي في الوقت المناسب.	True	False
5.	I am nervous and anxious during the lecture.	احس بعدم الارتياح خلال المحاضرة.	True	False
6.	I do not provide a clear opening when I begin.	لا اعطي مقدمة واضحة عندما ابدأ.	True	False
7.	I have difficulty getting to the point I want to make.	أجد صعوبة في شرح النقطة التي اريد شرحها.	True	False
8.	I say too much too quickly.	أقول الكثير بسرعة.	True	False
9.	I have difficulty timing my lecture.	اجد صعوبة في توقيت المحاضرة.	True	False

10. *I use too much technical language.* أستخدم لغة علمية اكثر من اللازم. True False

11. I tend to make too much use of humour. أستخدم طرف اكثر من اللازم. True False

12. I assume too much knowledge on the part of the students.
اعتقد بوجود معرفة كبيرة لدى الطلاب عن الموضوع اكثر مما هو موجود فعلا True False

13. I am frequently not happy with my own knowledge of the topic I am lecturing on.
نادرا ما اكون راضية عن معرفتي بالموضوع الذي اشرحه True False

14. I forgot to provide a summary of my lecture at the end of the lecture.
نسيت ان اعطي ملخص عن المحاضرة في نهايتها True False

15. I do not link the sections of my lecture clearly.
لا اقوم بربط اجزاء محاضرتي بوضوح. True False

16. I do not leave sufficient time for students to copy diagrams and notes.
لا اترك وقت كافي للطلاب لنقل المخططات او لكتابة ملاحظات. True False

Adapted from Brown, George and Bakhtar, M. (1983) Styles of Lecturing. Research report: Loughborough University.
Found in Rost, M. (2002) Teaching and Researching Listening. Applied Linguistics in Action Series. Christopher, N. and Hall, D.R. (Eds.). UK: Pearson Education.

APPENDIX 7

Lecture Transcript Number One-Experimental Group

Ok so / this is something related to the unit we have in the in-house book which is Education // I chose to start the unit this way because I know you have a lot of things on your minds and through the discussions we had the last lecture I noticed that you tend to blame the teacher for a lot of problems that you already have like vocabulary// like the problem you face in listening// I am going to show you through this discussion and I've prepared this from a book that I have on listening and speaking and the skills// I'm going to show you through this discussion that it's not a matter of whether or not you have the right teacher it's a matter of whether or not you have the right education and whether or not you are prepared for your education now at the university // to just give you a point of view from a book on the type of difficulties that EFL learners face // now EFL stands / or this is a very important term and it stands for English Foreign Language/ stands for English Foreign Language/ so English Foreign Language Learners are you / right? / because you're learning the language as a second language or maybe a third language/ maybe you know Arabic, Swahili, or Urdu or Blushi / and English is the third language, it's not the second language it's the third language/ right? // OK // So anyway // lets start with the psychological problems // now Psychological problems basically are problems that your teacher are aware of / some of the problems your teachers are aware of / and they relate to studying in a different environment than the one that you are accustomed to / Ok? // so when you say psychological problems that students are facing when learning the language it is related to the different environment in which you are learning the language // the environment that you are used to is the school environment / right? //when you have the teacher acting as a mother or a father / right? // he is the father or the mother figure in class and he does not have a lot of aaa control over anything other than the class // I mean by this that he has control over you as a student and he has a curriculum to follow and this curriculum / you know what a curriculum means / this curriculum is not necessarily a good one / got it? // so when you are used to learning the language in a limited way or in an environment as limited as the environment that you actually leaned it at school / high school / elementary / whatever / you are accustomed to learning only a few things every lecture / and learning them in a very simple way / aren't you? / right? // and sometimes the teacher actually uses Arabic to explain the terms or the grammar / right? // maybe you don't have an Arabic teacher / maybe you have an Indian teacher which affects the pronunciation because I'm sure that a lot of you know that a lot of Indian teachers or Pakistani teachers cannot get rid of their accent when they speak English // so it's always there / you can always listen to him speaking English in a different accent than any other person // so anyway it is just one of the problems as we said and // but the most important problem that you are facing now at the university is that you are studying in an environment that is totally foreign to you // the teachers are different / the curriculum is different / the amount of information that you learn every lecture is so much you you know by the end of any lecture you get a list of vocabulary items that you need to learn if you don't learn this by the time the next lecture starts you will have another list and another list every lecture and they will accumulate / right? // so vocabulary is something you all suffer from // ammm / another very important problem underneath the psychological problems / we said the environment is different / right? // this is the first problem / the classroom environment is different / right? // the other problem is that the environment in which you live is different / you get homesick / don't you? // especially those who don't live at home anymore / right? // how many of you live on campus? // ok / most of the ladies except Khulood / what about the gentlemen? // you live on campus? // but you don't live at home? //ok / now have you ever noticed that this really is a big issue to you that it is a really big psychological problem affecting your life? // don't you think it is a problem that you face every term? // living at home is totally different // you miss your family / you miss your bed / you miss the food that your mother cooks / you miss the evenings and the discussions that you have / right? // this is a very big issue / always keep this is mind because we are aware of it as teachers // but when you are aware of this problem you become a little cooler / you become a little calmer / if you are aware of it / if you keep it in mind // another problem relates to fear of the unknown // fear of the unknown / you are always afraid that something wrong might happen to you / aren't you? // yes, you are afraid because you are alone / you are an independent human being now // and this independence comes from independence from the family and independence from the teacher also // his is something I want to stress // the type of schooling that you are getting now is totally different from the type of schooling you got from high school and primary // teachers no longer treat you as children / you are adults // you are given a

chapter to read or a book to read / you are responsible for this book and the teacher should not be expected to explain everything // this is something that happens all around the world except here // you always feel that the university is a big school that they provide you everything and expect everything from the teacher and this is the problem // this affects the type of education you get here because you always depend on the teacher in everything/ this is wrong / ok? / this is something from a book / I'm not saying this / I didn't make this up / clear / now / the solution to your psychological problems is very easy / all you need to do is pinpoint your problems / identify your problem / pinpoint the problem and then try to solve it / if you are homesick / try to think of the advantages of living away from home / because if you are living at home there are a lot of disadvantages / you are less independent / right? // here you are more independent // you can go to the library whenever you want especially ladies / you can go to the library at 7 / 8 o'clock in the evening / 9 o'clock/ but at home you won't be able to do that / so you need to look at all the advantages in order to overcome the disadvantages // and try to enjoy your time / try to look at the university as a place where you can enjoy your time as well as study / got it? // so this is what the book suggests to you as a student // now lets move on to another problem / the cultural problem / the cultural problems that you face // this is another problem that teachers are aware of but that some of you are not really aware of // if also applies to studying in a different environment / just like psychological problems // it is the result of studying in a different environment // now some of the cultural problems that you face here are accommodation / food / money / friendship / things like that // now I know that you are not totally happy where you're living // I'm sure that some of you have problems with the type of people you're living with or the type of people you're living around // I heard a lot of students complain that their roommate of flat mate causes a lot of problems like disturbance in the middle of the night / they watch TV too much / listen to loud music / interfere with your personal life / right? // these are all problem that are affecting you as a student and you don't know them // you don't know that we know that these are problems / do you? // you don't know that we are aware of these // and you might feel that OK it's a problem everyone is facing / but if you really know that it's a common problem and that everyone is facing it this should make them less affective on you as a person // do you understand what I'm saying? // if you realize that this problem can be solved and this is a common problem / and you either try to move out or live with the person that is annoying you you know there is a solution // you can find a solution to everything // another cultural problem that we have is getting used to the customs and habits if the new environment // are the customs and habits and the situations that you are put in in this environment the same as those that you are accustomed to at home? // totally different // the type of people you meet are different / the type of customs and type of things you are expected to do are different / right? // the solution to these problems / how do you solve your cultural problems when you are living in a different environment? // Pinpoint your problems exactly / and be open-minded // if you are open-minded you can accept other people's points of view / their habits / their customs / right? // each one of you is living now in a different region of Oman with different customs / right? // different traditions // be open-minded // accept them as they are and be adaptable // try to adapt // try to acclimatize to the people // try to get used to them // because if you always think you can get what you want in life in general or in the surrounding environment and that everything should be provided for you you will always be unhappy // you will always feel that something is missing so just accept the situation as it is // this is a new place // you cannot impose what you have at home to the new environment in which you are living // you cannot change your friends and make them exactly like you in everything in tradition / in the way you dress / the way you walk / the way you talk // you cannot do that // so accept people as they are / clear? // and when I say accept people as they are I don't mean only the students / I also mean the teachers / got it? / I remember I had a lot of teachers and there were very nice teachers and there were very bad teachers but some of the very bad teachers were better in teaching me than the good teachers were // so also try to see what is good and what is bad in everybody because there must be something good in everyone / it will help you understand better // in my case / you remember the discussion we had the other day / I cannot change the way I'm teaching because I cannot make you dependant on me // this is not school // if you search the Internet for any information on the type of things that the student is expected to do at any university around the world / you will see that the first thing they will say is that students should be independent // It's not like school is kindergarten the same as primary school in terms of the relationship between the teacher and the student? // I'm sure most of you know how life is in kindergarten because you have either a brother or a cousin or you saw it on TV // Is the relationship between the teacher and the student the same in primary school and high school? // totally different // so why do you think that high school should be brought into the university / got it? // Did you get my point ? // ok / now let's move on to linguistic problems // any linguistic problems is something that

most of you is worried about because it relates to grades and the language and it is all about getting good grades because this is your major // Now linguistic problems are different than psychological and cultural problems because they do not relate to the environment in which you are living / they apply to every environment and by this I mean that the you learn the language the same way at home as you do in any other place like here at SQU // It doesn't relate to the type of environment / the way you are learning the language is not different / got it? // it doesn't apply to the environment // it applies to you and the skills that you are doing and the things that you are doing // now the first problem we will talk about under this heading / the first subheading is listening and understanding // I'm sure that this is a very difficult thing for you, isn't it? it is part of this course // now underneath listening and understanding you need to know why you have problems in listening and understanding // the problems that you have basically relate to high school and the way you were used to listening in high school // now in most high schools you don't have labs / you don't have listening labs do you? // a listening lab is a place where you have a booth and in this booth you have a tape recorder // you are given a tape by the teacher and you have a headphone // so you are listening on you own to the tape that the teacher gave you // the tape includes information that is suitable to your level / this is one // the second thing is that the tape is clear // it's very clear / there is no problem with respect to background noise in the tape / no distractions at all caused by anybody else because you are sitting in a place almost isolated // got it ? // did you have such listening practice in high school? // do you think you had enough listening practice in high school? // ok / so you don't have enough listening practice in high school / you don't have the good listening practice in high school and this causes a lot of problems to you when you come to the university because you have are shocked with the amount and type of listening you have to do every lecture / right? // in high school some teachers used Arabic and when they switch to Arabic / that's it / you tune in into Arabic so you don't have a problem anymore // but here we speak English all the time / right? // there is a big difference between hearing and listening / what you are doing is actually hearing // when you hear something you only allow it to go into your ears not really processing it / without really understanding it // this is the difference between hearing and listening // while when you listen to something you listen to it / you allow it to go into your ear / you process it // your brain processes it and understands it // your brain analysis it // and you relate it to what you already know and critically evaluate it // do you do this all the time? // so you are hearing mostly / but not listening most of the time / got it? // hearing is the first step to listening // this is what you are doing / you are only hearing but you are not taking the next step // you're not listening you are just hearing / clear? // now / um / some of the reasons of the difficulties that we have in listening relates to the teachers' speaking too quickly to catch up with them / right? // another thing is in the variety or the different types of accents that teachers have // you have an accent that is AAA / you have a British accent/ American versus Indian accent versus Arabic accent / because some teachers especially / if they are not native / if they don't have English as their native language / they always speak in the accent that they are accustomed to / right? // and it differs from one teacher to another // you know this don't you? // but pay attention to this because if you forget that this is a real problem / it's a real issue / you won't be able to overcome it // know that this is an issue // always remember it // the third problem / sorry the third reason that we have problems with listening is that you cannot differentiate between the styles of speech / the formal and informal // some teachers always use informal speech in class while others use only formal speech // it's difficult to differentiate between these especially if you are a beginner in English / clear? // this is the third reason / the final reason why we have problems in listening // now the solutions to your listening problems // what are they? // the solutions are to attend your classes regularly / you need to attend all your classes not some of them / all of them // you need to go to the listening lab and use the language lab // if you don't have a language lab / here in the university we don't have a language lab / so you can make your lab yourself by watching programmes on TV / listening to the radio / using the videos I told you to use / remember those? // this is the language lab because I don't have a language lab // this is what the course is suggesting for us to use // now in some of the other courses that you had in the intensive course for example the teacher sometimes gave you a book and asked you to read it and then you are supposed to explain this book or talk about it in class // do you remember if you did this before? // now do you think this is the only way that you can use to learn from this book / from the material // it's not the only way / there are so many different ways // if your teacher doesn't want you to come / if I give you a tape / one of the video tapes and I tell you to come in front of the class as is happening in some of the other sections / this is what is happening in the other sections // the teacher gives a topic / ok / go and watch one of these tapes and come to discuss it in class // if you are the only person who has watched this tapes you will be the only person who has actually benefited from it // and the other students can just take notes and then repeat what you said // so where is the practice? // so you're

actually kidding yourself if you're doing that // this is why I don't do it in this section because I find it useless // all of you watch the same video and are expected to discuss it in class when the discussion doesn't take more than five minutes // we can discuss it in half an hour but keep repeating ourselves // this is not enough / not good // right / this is why I told you to be independent and use the material that you learn from the videos into your discussion // this way if you say something the teacher will notice if it's being repeated and will stop the person repeating it / got it? // there are so many different ways to practice like listening and reading books and listening to tapes // simply by listening to them and taking notes and remembering some of the vocab. and using them in the class discussion and the interview is more than enough // we have interviews // if you use the material that you get from the video tape in class / will you be able to use the same in the interview? // you won't be able to because you will be repeating the same thing over and over again // ok / now / um / lets move on to the um / speaking problems / now most of you have noticed this problem and it's as simple as this // you have an idea in mind but you don't know how to put it into words and you don't know how to put it into a grammatical sentence and present it // that's the problem // you have the idea and maybe you have a lot to say // maybe you have information that the teacher doesn't know and you know if you say it you will impress the teacher // but you don't know how to express it // this is normal / very normal // we are aware of this // you need to know that we are aware of this and you need to see how you can solve this problem // the things that you can do in order to solve this problem in specific is to try to put your words into simple language // use simple language to express your words // if you don't know the vocabulary item that you need to use in order to express your idea / forget about it / move on // try to use a simpler vocabulary item // but if you do know the vocabulary item use it because this will give you the opportunity to practice the vocabulary that you learned / clear? // now / another solution / another way to solve this problem is that you need to think in English not in Arabic // to think in English / don't think in Arabic // (student: and dream in English) // if you can // if you think in English you don't have to go through translating from Arabic into English which is a mistake // yes you are learning English so always think in English // if you want to plan the next step you make or you want to think of what you are going to do after class don't of it in Arabic / think of it in English // not difficult // instead of saying ok AROOH LILMEKTEBEH / say I'll probably need to go to the library // is it difficult? // it's not difficult // if you start with simple things you will be able to develop through time // if you do it really this will help your speaking and writing // not only this / your speaking / writing / reading and listening / everything // yes Khulood // (student: I have a friend who loves Arabic and dreams in standard Arabic) // yes Mariam // (student: we don't know the vocabulary) // well look for it this is why we have a dictionary // we are learners / you and I / we are both learners // once you know library is MEKTABA and since you are a learner of English and you are a major of English try to use the word later // the first step is to know that this is this in Arabic to translate it but once you know that this word is what you want to use / 'library' is what you want to use in this sentence / right? // always think about it don't translate // don't you say ok I'm going to participate in this discussion and I'm going to say the word 'library' // instead of thinking in Arabic don't you do that? // instead of thinking in Arabic think in English // it's not impossible // Am // the third thing that you can do to help improve yourself in speaking is practice speaking as much as possible // practice speaking with a friend // you can have only one friend and this friend is more than enough to help you // you don't have to have a group of people to talk to // just one friend who is interested in improving her or his speaking can help you because you can talk all the time // and the fourth thing is that you need to notice the English or the type of English used by people in different situations and we are doing this by watching videos we are noticing / we are listening to the way they are using the language // we are doing this also by listening to the tapes that we have in Northstar / right? // so notice the language used in the different environments/ ok // notice the type of language you use in an interview / in a formal interview versus the type of English you use in a conversation with a mother or a father / right? // notice this / ok? // now / this is basically some of the listening problems and solutions// now lets move one to reading // when your teacher assigns a unit or a book to read do you actually have a strategy? // do you know how to read a book or a unit or do you just open and read non-stop until it ends? // so open and read // most of you just open and read // if it's a book for example you need to know that there's a strategy // you should not treat every single type of reading the same ways as the other // if it's a chapter it should not be treated as if it's a passage // and a passage should not be treated as a book / right? // lets take for example reading from a book / and I'm taking about effective reading // I'm not talking about reading without understanding // I'm talking about reading with understanding which means what / effective reading // you need to know four things before you start reading a book // through our discussion of these four things / you can apply these four things to the other types o texts // now we're talking about a book now this is what is

happening abroad in most universities // not in Oman // I'm taking about abroad // it eve happens in Iraq // the teacher gives you a book and tells you to read / read around the topic that we are going to talk about // he gives you a topic and the book is related to that topic // most of the information on the book is related // he tells you / look for the answer to this question or read this book and we are going to have a discussion related to a certain topic // what do you do? // you need to have four things in mind // you have to make sure you know why you are reading // this is the first thing / you need to know why you are reading // is it because you are trying to find an answer to a question? // or is it because you want to find evidence to something that you believe in / right? // if we are reading for example the Quraan / you might be trying to find an answer to a question // you might be trying to find evidence to an idea you already have // you have a discussion you want evidence to support your discussion so you look for the verse / right? // the second point is / you need to know what you are going to read // what is the thing that you are going to read? // now this is something that you can find if you are talking about a book / this is something you can find in the contents / and in the index of the book // the contents is the few pages in the beginning of the book / it gives you what the book is about / it gives you a description of the chapters it gives you the headings only of the points that will be discussed in each chapter // if I'm looking aa for the definition aa of the word 'phonetics' for example // and the book is all about phonetics and phonology / right? // I'll have to go look for the word 'phonetics' in the contents' page / right? // maybe the first chapter is all 'what is phonetics' / but this is still too big / too much to read / right? // what do I do? / I go to the index page or pages in the end of the book / in the index pages I have the words and the page numbers in which I find this word // have you noticed this in most of the books you study? // this cuts down a lot of the time that you you aaa take reading the chapter / instead of reading the whole chapter just to find the definition / look at the index page it will tell you where to find the definition exactly which page // ok? / and then you can scan this page / do you know what scan means? // you look for certain information / right? // and you can look for the definition and find the definition very quickly so you need to know what you are looking for before you start reading / and then / get an overview of the chapter / an overview/ an overview means the general idea of the chapter // and you do this by reading the introduction and the conclusion of the chapter // it gives you a general idea of what the chapter is about // you can do the same thing if you apply it to an essay you can read the introduction and the conclusion of the essay / right? // ok / I've taken the book as an example but you can apply it to any other type of reading // now the forth thing you need to to put in mind is that you need to have a question in mind / you need to ask yourself a specific question / related to the topic // so if my question is 'what is phonetics?' / right? // I will be able to answer the question easier / I will be able to find the information quicker wouldn't I? // but if I'm reading without a purpose / I wont be able to understand what I'm looking for and find what I'm looking for easily / right? // don't you think so? // I have to have a question // I have to know what I'm looking for // now in reading from a book or an essay reading an essay I mean or a short story or something / you need to aaa make sure you if have the information if you know what you're looking for // you need to make a note of the details that help you answer the question whatever the question is // so note taking can actually help you understand what you're reading // so while you are doing all of these / while you are reading the introduction reading the conclusion or trying to answer the specific question you have in mind / note taking can actually help you do that by helping you pay more attention to what you are reading // note taking facilitates reading / it improves reading // reading with comprehension I mean // or efficient reading / right? // ok // now / lets see if you are an efficient reader / do you know how you can check if you are an efficient reader? // there is simply one major thing / it relates to speed // ok? / now we are talking here about reading with comprehension which is what / what did we call it? // efficient reading // if you read with comprehension it means that you are doing the right thing but the speech of reading with comprehension can differ from one person to another // there are three basic types of speeds there are three basic speeds // there is slow speed // there is the average speed // and there is the high speed / ok? // now the slow speed is usually used when you are trying to memorize something // when you are trying to prepare for an exam / you use slow speed // this is what you need to do you need to read slowly // you cannot read quickly because the brain doesn't have the ability to register the information / to help the information stick to your brain // you need to read in a slow speed // the average speed that people usually read at is the speed when you read a novel or a story just for enjoyment / so there is comprehension but the type of comprehension is not the same as that used for memorizing stuff / like when we do when we have to prepare for a test we have to read slowly when we're preparing for a test but we don't have to read slowly when we are reading a novel // the fast speed is the speed that most of us do or most of us use all the time / it is the type of speed that we use when we are skimming // and skimming means I'm looking for the main idea of what I'm reading // not scanning / skimming // skimming means

I'm looking for the main idea of what I'm reading while scanning means I'm looking for certain information / right? // speed reading or fast reading can help you skim and scan / because your eyes are jumping from one word to another very quickly just to find the vocab. item you're looking for / once you find the vocabulary item you look for the idea is this related to what you're looking for is this the idea you're looking for? // if it's a number / this is it // if it's a date / this is it // now / this is a simple test that you can do at home to see whether or not your reading is efficient // aa put a clock or a watch or a timer aside and read a paragraph with comprehension read it efficiently for one minute / ok? // read a paragraph for one minute with comprehension / so you need to read and understand it / ok? // and remember I'm talking about a person learning a foreign language / I'm talking about reading in English // read a paragraph or read a few sentences for one minute and then stop reading / and then count the number of words that you read // the reasonable average of the number of words that you can read efficiently is two hundred fifty words per minute // so if you find out that you have read two hundred fifty words in this minute with comprehension in one minute if you can find out that you can read two hundred fifty words with comprehension in this one minute it means that you are an efficient reader / you are a good reader // did you understand what I just said? // (students: yes) // this means that if you can read two hundred fifty words this is science this is form a book it's not mine / if you can read two hundred fifty words in one minute with comprehension it means you're a good reader // if you can't what should you do? / blame the teacher? // (student: blame yourself) // it means you need more practice // you need to read more / you got it? // try it // it's interesting to try it // ok / yes // (student not clear) // it depends of course on the topic you read / try to choose a topic that you are familiar with / not something that you have prepared before // you got it? / so for example // the next Nothstar unit I give you should help you out aaa / try to find a paragraph in this unit / right? // the language the difficulty of the language is suitable to your level // but you will find a few vocabulary items here and there not everything will be strange // try to read it / try to guess the meaning of the vocabulary item from the context // you can use your aa reading course aaa Eleven nineteen / right? // read any paragraph from any story or any essay and try to read it with understanding // try to read it efficiently / effectively // if you can read two hundred fifty word in one minute with understanding it means you are a good reader // if you can't it means you need a lot of reading practice // and in reading practice you just read / read more // read whatever you can get newspapers magazines read read your work read do you homework properly // go to the library // find something to read in the library // open the dictionary // I always open the dictionary sometimes when I don't have anything better to do I open the dictionary and try to look up some vocabulary items that I don't already know // I just open it like this // try to learn a vocab. from one page // ok ? // you can do that read / this is just to improve your vocab but I'm talking about reading // so this is simple a matter of practice // practice makes perfect as they say // now aam // an important thing under aaa reading / an important heading under reading is vocabulary // lets talk about vocabulary in detail // I'm sure you're interested in knowing what I have for you for vocabulary aren't you? // you will hear things // (tape stops and is turned) // when you hear a vocabulary item you need to make sure that you before you start learning a vocabulary item / that should be this information should have been told to you or taught to you in high school // but there are certain misconceptions about English vocabulary / do you know what the meaning of misconceptions? // (student: yes) // what does it mean? // (student's meaning given in Arabic) // yes / misunderstandings about vocabulary items / in English / many of you think that there are many words in English that have only one meaning / don't you ? // (students: unclear) // is it that many words in English have only one meaning? // (students: no) // good / if you think that most words don't have one meaning it means you are on the right track // but many people think that words in English or many words in English have only one meaning // actually / most English words have more than one meaning // more than five or maybe ten meanings // just look at the meaning of the word in the dictionary // they have different meanings they have different usages sometimes a word is used in a different way / if it's used in an idiom it would change meaning / right? / things like that // now why do you think such a misconception as this has been formulated? // there are two reasons why this idea was spread or made common between people // aam in science they usually try to make aam things very clear they try to find only one counterpart or one aaa meaning to every word they use in science // like the word ' earthquake' / is there another meaning for the word 'earthquake' do you think? / in the dictionary // (students: no) // it's something scientific isn't it? / right? / 'a gene' 'genes' ' the gene of a person' / is there another word in the dictionary for the word 'gene'? // (students: no) // so basically most scientific words have one meaning // this is why people think that all the words or most English words have one meaning only / got it? // this is the reason why this is one reason // another reason is // relates to the type of relates to the way you have been taught English / in high school / in primary school // usually they give you the

meaning of a word and give you the meaning of the word to memorize /don't you don't they ? //they don't tell you to look the word up in the dictionary // they sometimes give you very simple dictionaries / dictionaries for beginners and in these dictionaries every word has only one meaning / no other counterpart / right? // this is just to make it easier for a learner // but this is just the first step // if you think that this is the right thing and this is all / you're wrong // this is only step number one // do you remember a while ago that you have to know the word in Arabic in order to understand it? // this is the first step // but later on you have to forget that this is Arabic you have to speak in English in order to be able to express your ideas / got it? // so the same thing happens here / you are taught that every word or you are given a word in high school for example the teacher tells you this is the meaning of the word / right? // you take the teacher's word for it / finished / this is the meaning / I don't need to look for other meaning of the same word because this is the one I'm going to be tested on / right? // this is why people think that English words have only one meaning // the second misconception is that every English word has an exact translation / in in our own language // every English word has an exact translation in our own language // so if I have one word in English I can find one word in Arabic that means this word // this is what people think // this is wrong // because some words in English need to be translated in terms of a phrase / a whole phrase / in Arabic / got it? // (students: yes) // like 'have lunch' // how do we translate it into Arabic ? // YAAKUL? // what do we do? // 'I'm having lunch' // 'have lunch' / the word 'have' / the word 'have' here means YAAKUL // right? // totally different word / right? // this is something else that you need to know // you need to know that not every word in English has an exact translation / like 'have' here // but you need to realize this if you realize that the word 'have' is not like what you use in Arabic you will be able to use the word have properly // instead of saying 'I'm eating lunch'/ because if you say 'I'm eating lunch' you are translating from Arabic into English but you don't know they are different / they are actually different // this is why you make mistakes // you think that there is one word for every translation // that for every vocabulary item there is a vocabulary item in Arabic // no it's different // the third misconception is that you can use the word correctly as soon as you learn it // as long as I know the word I can use it in every context / as long as the vocabulary item is correct // I mean by this is that / sometimes you learn a vocabulary item and the teacher tells you that this is a pejorative meaning for a word // for example 'determined' and 'pig-headed' / right? // 'pig-headed' is the pejorative meaning for the word 'determined' / 'determined' is positive 'pig-headed' is negative // I'm determined on this I want to do I will definitely do it I have the will and power to do it // but if you say 'pig-headed' it means that he is stubborn and he doesn't change his mind easily and he is so fixed on these bad ideas and bad concepts he doesn't say that 'I'm wrong' he thinks he's right // you got it? this is 'pig-headed' // clear? // now if you think you can use the word 'determined' and 'pig-headed' in whatever context you want this is wrong / because each one has its own context / got it? // this is what is happening / you think as long as you know the word you can use it whenever and wherever you want / which is wrong // it's easy to know which word to use in which context in Arabic because you have more practice in Arabic than you do in English / clear? // for example the word ' starts' and the word 'commence' // 'commence' is the meaning of 'start' / right? // now when you learn he word 'commence' and you use the word 'commence' when you speak to a friend this friend will laugh at you because the word 'commence' is very formal / it is only used in written English / to mean the word start // are you with me? / so if I say ' the this or the fall semester will commence on the third of October' or something like this / people will think I'm being very formal // if I'm using it in a meeting it's ok but if I'm using it in a dialogue with a friend this person will laugh at me / if he understands it / clear? // so when you learn a meaning of a vocabulary item you will need to know exactly where to use this vocabulary item / you cannot use any vocabulary item in any context you might think // this is a misconception / vocabulary items cannot be used in any context / they have to have a certain context they have to be used in a certain context / whether grammatical context whether situational context / clear? // now // what do I do in order to increase my vocabulary in a foreign language? // you always ask me this question / right? // what do I do? / what have I told you to do? // look the words up in the dictionary / right? // and use them in sentences // use them in this course // (student: more reading) // read more // but if you do not look the word up in the dictionary / what are you missing? // you're missing the opportunity of finding the other meanings of the word aren't you? // (student: yes) // this is one of the things we talked about just now // you're missing the opportunity of finding the phonetic transcription or the way the word is pronounced / which is not helping you prepare for the listening practice // this is what I told you before it's not from the book // I'm comparing what we have just leaned form the book from the notes I have and the things I discussed and I'm comparing it to what I told you // and then I told you to try to use them and this is what the book is telling us / try to use them in the right context // and how are we using them ? / we are supposed to use them in our discussions //

and not a lot of you are using the words that we learn from the units from the Northstar units for example in the discussion / do you think that you're using them? // not all of them / and some are using them more than others // and I'm sure it's clear / when a person uses a word / you know you listen to it you identify it very quickly / you always find it easy to identify a word from a Northstar unit when we discuss the points that we have in class // it's very easy / ok this is one of the words we learned from the Northstar / is't easy to identify it // ok / so when you learn a vocabulary item you need first of all as I told you before to do the stuff that I told but in addition to that observe the situation or the context in which the word is used // look at the context / where the context of the word is used / because this gives you a lot of information about the words // the other thing is imitating it as I told you before you have to imitate // and we're doing that we're supposed to be doing that aren't we? // not all of us are actually doing this and practicing the words but some are // and the third thing that the book tells is is to repeat the word again // practice it in different contexts // not only imitate it / practice it in different contexts // so if I say for example aaa the word 'overcome' // you remember this word right? / we had it in the discussion of the unit we had on addiction / right? // if we use the word 'overcome' instead of the word ' get rid of' / 'deal with' / I will be putting it in different contexts and practicing it // this way I will be having more opportunity to use the word and practice the word / it will give it more time to stick in my brain because we all have what we call mental dictionaries here // we have a dictionaries here it's not a book it's a mental dictionary // and SUBHAN ALLAH God knows how it works // but you need to know that this is a problem that everybody is facing and the teacher is aware of it // and because the teacher is giving you independence / in in your studies you know you should use this independence you should use this opportunity to learn more and not to be only tape recorders // if you are writing everything down everything that the teacher is saying you'll be acting as a tape recorder // you'll not be acting as a person who has a mind of his own who has ideas of his own / you will not be able to express your ideas properly // I don't want you to be tape recorders // and I want you to know that we are aware that you have problems // now after this discussion I want you to be aware that you have these problems and we are aware most teachers are aware of them // so whatever practice the teacher gives you // don't think that it's being wasted or it's a waste // some teachers have their own style of teaching // they're different than the others // maybe I don't like the way that my colleague is teaching // maybe I don't like it for a reason / maybe I know more than my colleague // or maybe I'm simply wrong / right? // it happens // you should just understand that this is a situation I mean the classroom at the university is a situation that is not related to high school // separate yourself from high school // and become a more independent person and independent learner // ok? // and try to stop blaming the teachers for your problems // I know it's difficult because I was a student myself but in Iraq I'm telling you this I'm not telling you this to change your mind completely just put it there just think about it just think about it if you believe it ok if you don't just put it aside // our teachers use to teach from eight to something like one o'clock continuously// ok? // as a teacher this is very stressful to a person/ it's very stressful // I'm sure you haven't tried it / but if you teach from eight to one o'clock // this takes all your energy / right? // so when you come into the classroom you don't have time to be nice / do you know what I mean? // you want to teach the students something important for them because this is part of your job it's all your job // so if you have a person if you know that your teacher is a serious teacher / now this doesn't mean that you should disrespect him or her // you need to understand that this person is trying his best // this is his ability // you are sitting here you are quiet most of the time but the teacher talks most of the time / which is harder - talking or listening? // talking is harder because you're responsible for what you are saying / I'm responsible for what you are thinking // I can plant things in your brains it's very easy // it's just like talking to children with all my respect to you but there is a very big age difference between us // do you understand what I'm saying? // and also culture /culture also affect you // the type of culture that the teacher brings into the classroom is different from one teacher to another // there are teachers who don't really care about the type of material they are teaching // they don't want you to learn they don't care if you learn or not // they just come into the classroom have fun have fun and leave // but there are teachers who are more serious who do not worry about criticism // they just do their jobs the best way they can and leave // just pay attention to this // you are still growing up / you need to know that you're not right all the time // look at me I always apologize if I'm wrong // it's not a problem to apologize is it? // it's not a problem / actually if you don't apologize you will be in a worse situation because people would think that you are proud and you are stubborn and you think you know better than they do // (students unclear) // sorry? // (students: unclear) // I don't think that's the word / I don't think that's the word / you 'look down on people' you mean // yes // anyway / what I mean through this discussion and I tried to aaa to talk about things that relate to the unit that we have about education because it dose relate to the unit // know this is something very important / I

wanted you to listen to want I have and I wanted to bring stuff from a book and if you want the reference I can give it to you / I can show it to you if you like // these are essays // these are three or four different essays that I summarized into points that I wanted to talk about // and it's good that we had the discussion we had the other day because this was one of the reasons that encouraged me to do this // I wanted to show you that we are aware of your problems / you need to be aware of our problems / got it? / as teachers we have a lot of problems / stress of going into a classroom doing the right thing / giving the students enough practice / telling them what to do / making sure that they do it // I can't make sure you do something unless you want to do it // if you don't do something that I want you to do it means that you are either uninterested in the course or you are lazy // if you are not interested in the course it means that there is something wrong with me or the course // what can I do more than follow the course ? // I have to follow the curriculum // just because we have a speaking class doesn't mean we spend most of our time chatting / and doing nothing / right? / got it? // I think when I told you that this course is fun in the beginning of the semester // I think I shouldn't have told you this // I think this is my mistake / I think I should have told you that this is a very difficult and very serious course // because this is what I've been seeing and been noticing / I've been noticing that you're not taking this course seriously / yes Khulood // (student : unclear) // it's not the same effect // you are outspoken which is something I like about you but if used more words from the book I would appreciate what you say more // so actually it's not enough to be outspoken / Khulood always has something to say but whatever she says is based on her experience // this is what I as a teacher this is what I believe // I'm sure if you had paid attention to her before and if you had listened to her not heard you should have noticed that she is using her experience only // so far Khulood you are not using what I want you to use and it not my fault // you are interested / I can see Khulood is interested and the sign is that she always participates so it's not my fault // I cannot go to Khulood and bring the book to her and open the page and tell her to read or prepare for tomorrow's discussion // have you ever prepared for a discussion Khulood? // (Khulood : no) // how do I know // I'm sure you are wondering is it difficult for a teacher to know who is doing the job and who isn't? // WALLAHI it isn't / it's so easy // I don't want to start with the gentlemen // you know that I know what you're doing / right? // but the problem is I get annoyed when you are blaming me or the teacher about your inability to study / or your inability to feel interested in the topic // because the topic is interesting / the discussions we had so far are interesting / and I had fun / and I'm sure that two or three of you found them interesting // I can't say that the rest of the class didn't benefit from this discussions we had about 'addiction' or what was the other thing 'personality' // if you don't prepare for a discussion how do you think you will be interested in it // of course you won't feel interested in it // we can do the same thing as the other teachers are doing // I can give you role play / now what is role play? // role play involves more preparation than all of this // all of this put together // they're doing role play as an exercise // the teacher gives this as an assignment / each two or three of you should come up with a dialogue ok and use as many vocabulary items from the unit as possible // now I've asked you to do something simpler / and you're not doing that / prepare for a class discussion and you're not doing that // you say that you are preparing the vocabulary items but I'm not noticing it // I can't see that you are ready to give me the meaning of a vocabulary item every time I ask you to give / you're not showing me this // the evidence is that I have to wait for it or give it to you or turn the page // why are you forcing me to do this ?// are you with me? / do you understand what I'm saying? // I'm trying to show you what's happening // role play cannot work unless we have a good discussion // and we haven't had a very good discussion so far // we're having good ones but not very good ones // (student: unclear) // what do you mean ?// Amal you don't have a problem with class discussion at all / I'm very happy with your work // you shouldn't be worried // I'm sure/ I'm trying to show you that / I'm trying not to be bias // you say that teachers like some people more than they do the others // of course / I can't hide it // the last time I'm sure you noticed who used the vocab. items and who didn't // I'm sure you've noticed // some of you say I'll say something ok let me tell her about my experience // let me use a vocabulary item ok bits and pieces // it's not enough // how can have role play if I don't have a good class discussion? // a role play will not work if you don't have a class discussion // and your class discussion so far is not that good // only a few students are doing very well and the others are listening to them and wondering why they can't do the same // of course you can't do the same because you're not preparing for the discussion // you're not preparing for it // how do I prepare for a class discussion / I told you // use the vocabulary items from the book and just write a few sentences that you want to use // watch videos what TV// maybe the programme on TV is related // (Tape stops –lecture ends)

APPENDIX 8

Lecture Transcript Number Two- Experimental Group

Today we will go we will talk about 'the Speech Chain' // how speech is produced // what happens when it is produced // what happens when it is analyzed // how it is analyzed // and this will help you a lot in improving your speaking and listening especially when you move on to your next courses // when you listen to this discussion you know what you can do in order to improve your listening and speaking // this is why this is an important discussion / clear? // now / first of all lets talk about the brain // now all of you know that the brain consists of two parts / right? // we have the left part and the right part / we don't say parts we say 'hemisphere' / which means part /ok? // the left part and the right part // now a long time ago in the aamm beginning of the nineteenth century there was a scientist called 'France Joseph Gall' // you can just write 'Gall' G A double L // this person in the beginning of the nineteenth century / sat in his classroom and wondered why some students are more intelligent than others // don't you wonder about this sometimes? // but he was like that was in the beginning of the nineteenth century // he sat in the classroom and started wondering why some students and more intelligent than others // he realized / and this is something funny / that the students who are very intellectual very intelligent had funny eyes / there eyes were bigger than the others / got it? // they were just like popping out / clear? // this is what he realized // so he made a theory / based on this realization // he said something funny he said that language is located in the brain in the front lobe / this is the 'front lobe' L O B E / the front lobe of the head // this is what he said and he said that because language is located here it is pushing the eyes out / got it? // which is a funny a funny explanation isn't it // (students : yes) // right? // this theory Gall's theory is called the 'Localization Theory' / why because he located where language is in the brain / he was the fist person to locate where language is in the brain // and he said it's in the front lobe that's why it's pushing the eyes out // got it? // later in the middle of the century / the nineteenth century two scientists wanted to see whether Gall's theory is correct // these scientists are 'Paul Broca' and 'Carl Wernick' / he's German/ OK? // and this one is French I think I'm not really sure // I remember one is French and one is German // these two scientists where neurologists // we call them neurologists because they are interested in studying the brain its parts problems the illnesses the type of problems that can happen to a brain // 'neuro -' from 'nerve' // '-ology' 'science' // '-ist' is 'the person who studies this science' / right? // ok? // what did these people do? / they had a lot of patients in the hospital and they started studying the different parts // they started studying their cases // some of their patients came with damage to their front parts of their heads / some patients came with damage to their back parts of their heads / left or right / so they studied these people and they realized / what? / that people who have damage to the left part of the brain are unable to speak // got it? / clear? // (students : yes) // this is how they aaa how they realized that language is located in the left hemisphere of the brain // either unable to speak or unable to listen // they loose their hearing ability // so they noticed that most of the patients who had problems with the left part of the brain / they either had an inability to speak or an inability to hear / they loose either their ability to speak or their ability to hear // what does this mean? // this is the evidence that they needed to say that the theory of localization that Gall gave was wrong was not correct was not perfect // it's right that language is located but it is not located as Gall said in the front lobe of the brain it is located in the left part of the brain // you can remember all this by remembering the expression 'linguistic left' // the 'linguistic left' LL / right? // so you won't make a mistake later / because linguistic is language / right? // 'linguistic left' is the part of the brain that is responsible for language / ok? // now the 'Broca area' related to Broca is the part of the brain responsible for speech // the 'Wernick area' is the part of the brain responsible for listening / clear? / right? / these two like names were given to these areas because these two scientists discovered these areas and talked about them and studied them / clear? // yes // so is this clear? / is this clear? // now / lets move on to the speech chain // now you know what the meaning of 'chain' is don't you? // chain chain is like a string and you have a series of circles attached to each other // you can say the 'speech circle' if you like because it like goes / it continues it repeats itself // this is the idea // now lets see why // any problems so far? // now look at this diagram first / this part of the diagram is the speaker // this part of the diagram is the listener // now the speech chain is this / this is the speech chain // first of all whether the language I'm using is English Arabic whatever / right? // choose one of these languages and relate what I say to the language // if I want to say something I want to ask a person a question // what do I do? // it all happens in the brain / right? // the first decision starts in the brain // the linguistic level is the level in which I gather all the information I have and put it in the form of language /

but where does this happen? // it all happens in the brain // now how do I put it ? // first of all I have an idea / I choose a list vocabulary items that are suitable to express this idea // I'm the speaker / right? // after I choose the vocabulary item I then put the words into a grammatical structure suitable to the language / right? / that I'm using Arabic or English // after I decide on an idea I have a complete idea in a grammatical structure a complete sentence // I give this sentence by using sound / right? // are you with me? // these three stages happen here in the brain // in the speaker's brain / the first thing is that I have an idea and these three stages are the linguistic / right? / clear? / the first thing is that I have an idea and I choose vocabulary to express this idea then I want to produce it how do I produce it? // I produce it in my mouth using the vocal organs and the mouth muscles / right ? // so I transfer motor nerves / these are the nerves that connect the brain to the mouth / it gives signals to the mouth to produce the sounds /p, v, d/ each one is a different sound and has a different way // there is a different way to produce or articulate these sounds // so my brain gives a signal to my mouth to produce these sounds // so the motor nerves give instructions to the vocal muscles which are all the muscles in my mouth and throat to produce this sound wave // the sound wave is the actual sound plus message / got it? // clear? // so lets go back here / the linguistic level happens in the speaker's brain / I just explained it / right? // when the message is being produced in the mouth we get to the physiological level // so the physiological level starts from the motor nerves until it is produced / physiological means related to the muscles the nerves and all the parts that I have in my brain / and the things that help me produce something / clear? // any questions so far? // then I have a sound wave this is called the acoustic level // acoustic means sound related to sound // acoustic is the sound the sound is transferred to the air and reaches the ear of the listener // when it gets to the ear of the listener it is processed it is analyzed // it is perceived / 'perception'/ do you see this? // it is perceived it is received just like the receiver in your telephone / sometimes you have a signal sometimes you don't have a signal / right ? // if you have a signal you have a reception // so it received here and then using the sensory nerves it goes to the listener's brain // remember here we have motor nerves / why motor nerves? // because I want to produce it / motor from action / production / while these are sensory sensory means to analyze to hear // the eye is sense / touch is sense / smell is sense / so the sense of hearing / sensory nerves it takes it to the brain // this action from the ear until it gets to the brain is what? // again the physiological level why? / because it also involves nerves and the brain parts and the action or transmitting the message // got it?// and then it goes to the linguistic level of the listener's brain now what happens ? // what do you think happens in the listener's brain? // how can I understand the message? // remember I produced it here I started with an idea / then a vocabulary item suitable to express it / then grammar grammatical structure / putting vocab into structure to express it / and then the actual sound / right? // so now I have sound / I analyze this sound into what? / into thought groups // when you hear something you hear it in a grammatical form / right? // or in a certain structure but it has a rule // right? // after the grammar you break the grammar / you go into the meanings // and then the meaning gives you an idea // so then it's the opposite / got it? // the speaker produces idea then vocab the grammar / gives a grammatical sentence and then produces sound // the listener takes the sound then what? // cuts it into grammatical structures / then / it's the opposite operation // they are the same items but in reverse // got it? // in reverse order // and then after the grammar you have vocab and that gives you and idea and you understand it / got it ? // difficult so far? // this is what happens this is the speech chain // now // ok so that was the speech chain / now the rest of this lecture is going to concentrate on listening // not speaking / ok? // we will also mention speaking here and there just to relate the processes together // now do you know the difference between listening and hearing? // what's the difference? / is there a difference? // yes there is a difference / what's the difference? // yes Buthaina // (student: unclear) // yes there is no interpretation in hearing / so actually hearing is the first step into listening // right? // if you don't hear something you wont be able to listen to it / so listening is the ability to hear a sound and interpret it / you know what ' interpret' means // to translate it understand it // this is listening the ability to hear and understand // while hearing is just the ability to receive the sound // so if I listen to a man or a woman talking if I hear them I would be able to recognize this is the voice of a man and this is the voice of a woman / so I hear the voices // are you with me ? /I can identify this is the voice of a man and this is the voice of a woman / but what they say / if I want to understand what they say this would be 'listening' // got it? / because you want to analyze what they say you want to learn the information // remember all of this to connect all of this together // yes // (student: unclear) // no hearing is like the first step of listening // got it? // now so listening is more than hearing / hearing is the activity of recognizing that a signal is there that this is a signal / a voice of a man or a bird singing / this is hearing / music/ right? // when it comes to speech when it comes to analyzing speech this is listening // so in listening you make up a message make up a message from what you hear / using all the rules that you have about the language / you

use the grammatical rules together and the end product of listening is understanding // this is why we call it listening comprehension // have you heard this expression before? // 'listening comprehension' ? // because listening leads to understanding // so you construct or build a message from what you hear // now there are a few terms that we need to talk about or expressions that we need to make sure you understand // these are the terms that you will use when you go to the department especially when you start studying phonetics and phonology which a course a very big and complicated course // now as said 'comprehension' means understanding something / right? // what about 'perception'? // perception / what's perception? // to recognize sounds / so it's the initial step so it's the first step of the process of listening / right? / clear? // the first step of the process because it involves hearing the sounds and the first stages of analyzing it // now what's 'understanding' / understanding is comprehension / right? / yes / what is 'recognition' ? / speech recognition // what's the meaning of recognition? // (student: unclear) // to realize what? / to realize the meaning of what is being said and relate it to what you already know / this is recognition // recognition happens aaaa / it has something to do with memory // recognition is related to memory // so when you recognize something it means that you remember it // got it ? // or you can relate it to something that you can remember // clear? // like if I ask you a question and in this question there is a vocabulary item and this item is something you learned from another course / you are able to recognize this vocabulary item although I just give it to you but I don't give you the meaning you are able to use the memory that you have of this vocabulary item from another source in order to process and understand my question // because you already know it from another source / clear? // it's already there it's stored // imagine that it's like a floppy disk / or it's like a computer and you 're saving a file for vocab a file for grammar a file for sounds / clear? // so the message is like goes to all of these files and is processed // it is very difficult to understand how this is happening but this is the closest thing that human beings and scientists could find to explain the process / got it? // now // lets move on to stages of speech perception // the stages of speech perception // now // we said that speech perception is the initial stage of comprehension / right? // because it involves perception I perceive a sound and start analyzing it // the first stage is the 'reception stage' // reception is to receive // just like the reception you have in your mobile phone / right? / sometimes you can't make a phone call because you don't have reception / clear? // now the reception stage is also called the 'filtering stage' / you know what a filter is // most of you have filters in your kitchens just above the sink just to make sure that the water you use is cleaned one last time before you use it // it's already clean but you clean it one last time through the filter / so this is basically the same thing / when you receive the information you start filtering it by putting aside some of the things you don't want to listen to // for example / if you go into a room and there are three people talking to each other and I want to listen to one of them and see what this person is saying // what do I do? // I neglect what the others are saying like you switch off your ear to all the others except this person // you are able to listen to him clearly and understand him // it happens a lot // ok / this is why in this stage you have / it is very important in this stage to have a purpose for listening // I think we talked about purpose for listening a long time ago in either one of the questionnaires or one of the interviews // there is always a purpose for something / a purpose for taking notes a purpose for listening a purpose for writing // if I don't want to select this person and I want to only listen to this person I wont be able to filter / clear? // this is why we have to have a purpose // what happens in the reception stage so I will get the information and receive the information through my ear/ it hears it and the what what did we say the sensory nerves take the information to the brain and the first selection of the information is made // we select very basic stuff very basic things about it / clear? // this is the process / and very few phonetic decisions are made at this stage / you know what phonetic means / you heard the expression 'phonetic transcription'? / right? // so this is like a phonetic decision if someone says ' give me that pen' / right? // I would immediately recognize that this is 'pen' not 'ben' he didn't say 'ben' // this is phonetic decision I decided that this is /p/ not /b/ / clear? // this is what happens in this stage // very basic stuff / very basic steps // now the second stage is the 'identification and categorization stage' // I think it's very clear / identify and categorize / so these are the two things that happen in this stage // so of course these stages are leading / one is leading to the other / since they are stages one leads to the other // in the identification and categorization stage the listener I use all the information I gather from the previous stage and then what do I do? / I cut it I group it / got it? // I for example decide that this is a thought group this is a second thought group / this is an adverb of time this is an adverb of place this is the tense of the sentence this is the subject of the sentence / are you with me? // so I start using the phonetic decisions I made in the reception stage / phonetic decisions continue in the identification stage but also I use remember / grammar / we're talking about basically the same thing but from a different point of view // we're digging deeper into what we said before / so now I decide I cut the message into parts / got it? // so what are the type of decisions that I

make? I make aaa grammatical decisions I make lexical decisions / lexical means what? / related to vocabulary // all of this is grouped into categories and I categorize that this is a thought group and this thought group is an adverb of time // so I know where the time is / sometimes we picture it don't we ? // if I say 'what time will you go home?' as a speaker to you when you listen to this as a listener what happens? / 'what time will you go home?' // when I said 'home' you pictured home didn't you? / right? // 'time' and the word 'time' was important // 'what' was not that important it was secondary // before you heard the word 'home' you heard the sound 'home' I didn't say 'foam' for example or 'roam' or 'room' // I said 'home' / this is the phonetic decision / this happens in the reception stage // when you go to the identification and categorization stage you are able to identify // I think that was the best example I can give you / right? / and now what else happens? // the information / all the decisions that happen in these stages are then taken to the 'recoding stage' / now 'recoding' is to code again / what is a code? Code is like a signal made of numbers made of whatever / another name for speaking is 'encoding' // and another name for listening is 'decoding' // so recoding is to code again and again so this means that the message / after it is analyzed and everything and organized and categorized // it goes round and round in your brain until you make the final decision on it // the actual making up of a decision about what a speaker says takes time // but it happens very quickly // so this stage involves the actual thinking about the message before you decide what the final message is / got it? / clear? // in the recoding stage you think about the message a lot of times many times before you make the final decision on it // when you make the final decision on it you save it in what we call the 'long term memory' // 'long term memory' is the memory in your brain in which you store all the final ideas that you have // we have what we call the 'short term memory' / all this all these stages that happen from the moment the message is received in the ear until it gets to the recoding stage and it is understood / all of this happens in the short term memory it doesn't happen in the long term memory // I have a short term memory and a long term memory // a short term memory happens from the moment a message is received or perceived until it is understood / when it is understood it is sent to the long term memory for storage // I'll give you an example as an idea / when I give you this paper and tell you to go print it what do you do ? / you open a word document on the computer right? / you start printing and then you realize you make a few mistakes in there what do you do? Of course you save/ right? // now the computer here / I'm trying to make it something visual for you / the computer here / you are actually printing the words down on the word document and you save the word document for example on the desk top until you finish it / so you go for example have a cup of tea come tomorrow they day after and then you keep on writing stuff / correcting a spelling / adding a word here adding a word there before you print it / right? / so you have to read it edit it proof read it until you feel you are confident and it can printed it out // all these stages until you print it are similar to what happens in the short term memory // you're actually processing the data / when you print the paper / it's like you're putting it in the long term memory because it's the final it's over / got it? // was this a useful example? // are you sure you understood it? // so after you understand a message it is placed in the long term memory / right? // and the long term is important // some people if they have a car accident and the part of the long term memory is affected / they don't have a long term memory // very old people can also loose their memory / their long term memory // sometimes I'm sure you heard this sometimes a grandfather or a grandmother become so old that he/she cannot recognize you or your name who you are / right? This means they have lost their long term memory / right? // clear? // so if I want to aaa summarize all of this in a very short paragraph I would say that speech is analyzed in basically three steps // basically three steps // each step involves a number of steps / clear? // each basic step involves a number of other steps / each one involves a number of other steps // first the message is received by the ear and is put in the short term memory / ok? // it is received and put in the short term memory// then the main idea of the message is identified selected in identification and categorization // it is selected and put into a category / right? // after that the most important of what has been processed is recycled recoded in order to reach an understanding of what is said // this is where we get the idea / remember the idea? // this is where I get an understanding of what the message is saying // then after the message is understood comprehended // it is stored in the long term memory // isn't it interesting to know all of this? // (students: yes)// it's very interesting // ok now /I'm still talking about listening // now do you remember when I said that these three basic steps? // we also said that in these steps there are also sub-steps / right? Now // basically a lot of people have tried to understand how speech is comprehended // and many scientists came up with different theories and some of them were supported and some were not supported // this is basically the most common // the information I got here was from no less than forty sources put together // all if them agree on this / ok? // what they also agree on is that in listening there are what we call sub-skills // we are not talking about something that is totally different / we are talking about something very close to what we

had so far // but we are treating it in terms of sub-skills // if you open your study-skills books or your psychology books you will see that people will write 'skill' // the skill of reading the skill of writing // this is the process of listening but the process of listening is basically involved in it // the decision the type of decision involved in this is called 'sub-skills'// did you understand this? // because they are activities that you do // the activity of analyzing that this is /p/ not /b/ // this is a decision this is a skill / right? // remember when I said we use all the decisions that we have all the knowledge that we have the knowledge about the grammar the knowledge about the vocab. / we're calling these 'skills' / because to make a decision is a skill // so it's basically this // what I'm going to say now is another way of explaining this // not very different // now people have usually like to fine a way to organize things to make it easy to remember things / so what I have done is / this is my own work/ I categorized listening into four different sub-skills // four main skills sorry sub-skills / you can call them skills but it's better to call them sub-skills because listening alone is a skill // so a sub-skill would be something underneath // something involved in it not 'secondary' 'sub' // it involves it // so what I decided to do is to call them sub-skills the first one is what we can call 'literal' / 'literal' means related to the superficial or the very basic or the surface language we deal with / under this sub-skill what do I do what are the types of decisions that I have ? // I have put all the phonetic grammatical and lexical decisions that I make when I deal with the message // you know what a message is / the message that I hear // when I hear a message it's like language / right? // so I deal with it first of all I deal with it on a literal level / I try to analyze the language / how? // but doing all these decisions / all the decisions that I make within this / phonetic and then lexical sorry phonetic then grammatical and then lexical // we said here the opposite / sound and then grammar and then meaning // are you with me? // are you sure? // I'll repeat // these stages involve decisions // these decisions can also be called skills // because the act of making a decision involves or requires a skill / right? / clear? / now // all the sub-skills and the skills used here are number one phonetic then grammatical and then meaning / it's the opposite of the speaker // the speaker starts with an idea meaning and then grammar and then phonetics // we talked about this a long time ago in the beginning // so the literal skills or sub-skills of listening deal with the type of decisions I make to analyze the message / clear? // this is the literal / this is why I called it literal // now sometimes when I ask a question there is a hidden meaning in the question // it happens // this means that this is another level this is the second level // the first one is literal // I cannot analyze the hidden meaning of a message based on the literal // literal gives me basic decisions that relate to the grammar pronunciation and the meaning of the message // but sometimes when I say something I might mean something else // I'm sure this is not difficult for you to believe / right? / right? // if I say to someone who is wrote a very bad report 'very good job' and he gets an F and I say 'that's a very good job' what does it mean? // (student: unclear) // this can not be analyzed on the literal level // it has to be analyzed on the second level // what I call the second level is the 'inferential' // 'inferential level' from 'infer' do you remember the word 'infer'? in your reading class// infer is to guess 'inference' or 'inferential level' / or 'inferential skills' // which means you basically means you listen between the lines // have you ever heard you teacher say read between the lines? // so here you are listening between the lines // if the student has an F and the teacher says 'very good job' what does this mean? / it means that the teacher is blaming the student and is very angry at the student / right? / this is what happens in the inferential // now the next level is called the 'critical level' // critical from 'criticize' to analyze / right? / so this is very close the inferential level // you infer from my message to the student that I am telling him 'very good job' you infer that I'm not happy/ right? // when you criticize when the message gets to the critical level you start thinking of the consequences of my anger / are you with me? // you start thinking of the consequences or the things that might happen after this message that I gave the student / will the student laugh? / is it a joke? // do I intend it to be a joke? // how will I treat the student later? // what will happen? / will he fail the course? / this is all critical / you are thinking you're wondering // right? Clear? / about what has been said not what you say / you are listening // Mariam I tell one of students who got an F 'that's a very good job'/ right? / imagine it's you / you when you listen to it you look at your paper but it's an F / what I say doesn't represent the F // so after you see the F you infer from what I say that I'm angry // in the critical level you start wondering what my action would be other than being angry // and think about the possibilities of what will happen / will you fail? / will I give you another chance to do it again? / will the class laugh at you? / will you be able to increase your mark later? // you got it? // and you will also think in the critical level of why I said this? / what is the reason? / am I making fun of you? // this is what happens / clear? // but in the inferential level you will know that I don't mean only this I mean something else // in the critical level you will start analyzing // why did she say it? / what does she mean? / am I going to fail? // no yes? / clear? // now the last level is called creative / creative // and in creative as a listener / lets stick to our example // Mariam has

thought of this has analyzed all of this and now she needs to reply // when she replies she is being creative she is creating language / got it? // but how is she creating language ? / now she is a listener but when you get to the creative level she becomes a speaker // are you with me? // because she speaks she replies to my sentence // maybe it's something nice maybe I said something nice to her it doesn't have to be something bad / right? / clear? // ok ? / so in creative level you learn to make responses to what people say // now in a lecture what type of response can you make? // two types of responses / you are a listener now // you can either ask a question or give a comment or / (student: make notes) // exactly very good make notes // this is also being creative / right? // because you are using the input the information that is coming in and processing it and producing something but the product is not spoken it is physical you're creating notes // you got it? // now you need to make sure if you are trying to improve your note taking ability or speaking ability or your listening you need to know which part of these skills are you week in // and work on it / some students are weak in grammar / they have to pay attention to the their grammar / some students are weak in vocab they don't have a very good list of vocab that they can depend on // their long term memory doesn't have a big list of vocab that they can use // right? // they have to work on their vocab // god it? // all the things we said so far about listening apply to note taking // because this is the first stage to note taking // do you remember the question I asked you once? / can you take notes of something you cannot understand? // remember? // it was in one of the questionnaires or one of the interviews // some of you said 'yes' // which is amazing because if you say 'yes' if you think you can take notes of what the teacher says without a need to understand what he is saying / this means that your notes are really poor because note taking involves selection do you remember our discussion about note taking one of the parts 'Identification and Categorization' remember? // if you don't select what you need to listen to what you don't need to listen to if you don't filter / right? / you wont be able to write good notes useful notes or effective notes // so all this discussion applies to note taking / in addition to this // with respect to notes the things we talked about in the previous lecture about notes apply to only note taking / some of them apply only to note taking / but basically note taking shares a lot of skills with listening // these skills are listening and note taking / because listening is first / listening is the key to note taking // not 'hearing' // 'listening' is the key to note taking // right? // because you need to select / I can't sit down and write every word the teacher says even the words 'right?' 'ok' 'are you with me?' // if you don that it means you're not listening / if you're not listening you will end up being as if you are a person who is absent minded acting like a robot just writing everything he hears not listens to / so if you think that your notes are not good it means there is a problem with your listening // (student: or attention) // this is something else / attention is an important part of listening / attention is not really a subskill of listening / it's not a subskill / you have to pay attention but some students find it difficult to pay attention to anybody // this is no longer a problem of listening it's a problem of / it's a psychological problem / it moves to something else // got it? // (student: what is comprehension) // listening is comprehension 'listening comprehension' // we're talking about comprehension since we started // (student: we have problems with comprehension) // what do you mean by comprehension / I gave you the meaning of comprehension we said comprehension means listening comprehension if you don't listen you don't comprehend // if you have a problem with your comprehension it means that one of the processes of listening is wrong // either the grammar or the first of this one or whichever one // yes // (student: he means he has problem understanding) // understanding what is being said / yes I understood him but if he has a problem understanding what is being said it means he has / one of the steps in listening is not performed correctly // if you know the steps you should know how to perform them // try to think what is my weakness in which stage am I weak? // is it in the reception? // is it is the identification or categorization? // is it because I don't have a good memory? // some people don't have a good memory // this moves on to something physiological it means that something in the brain is affecting the way you process language and it is not allowing you to comprehend the message to hold it long enough to comprehend it // do you remember when we said we have to hold one sound until we say the other ? // this is exactly what happens in short term memory / I hold one idea until I hear the other and put them together to get a meaning // are you with me? // this is short term memory // you hold the idea interpret all the others try to get a final meaning and then it goes to the long term memory when it goes to the long term memory it will be understanding comprehension interpretation these are the terms // any other question? // yes // (student: unclear) / creative yea a lot / yes it happens a lot if you are one of these students now after this discussion you have to work on your creative level // these this discussion // remember when I told you I want to help you I want to use your notes to help me and at the same time help you / I chose this topic because I'm sure it will really grab your attention to some of the problems your are facing but you don't know why you are facing them // it's just because there are so many things so many steps it maybe you are

not really doing them the correct way like Buthaina now / she is sending a message / right? // ok take it out why are you so shy of it if it's a dictionary? // anyway any other questions // any comments? // yes Bushra // (student: unclear) // there is no understanding in the reception stage there is only picking / yes // (student: but if the sound is not clear) // yes this is the problem of the speaker // (student: unclear) // you can help the speaker improve his speech by either asking him to raise his voice // if it's a tape I understand what you mean / if it's a tape and there is background music right? // or if it's a tape of people talking in a field and there is a football match right? // there is a lot of disturbance / this is where you filter you start to filter and leave out the background music and concentrate on the words / if it's too difficult for you you need to practice // if you can deal with it if it's in the lecture and someone is bothering you people are talking there and others are talking back there ask the teacher to tell them to stop talking // but if it's on a tape in a football match two people are talking // you have to force yourself to filter this is what we call filtering // I know it's difficult but if you listen to pieces like this a lot you ear is trained to filter // train yourself / this is another problem maybe you can understand everything but you cannot filter // train your ear // (student: unclear) // but in the same time you should try to solve all the other problems if one speaker is saying something // it happens a lot with me when two or more students are talking and give the answer I'm sure you've seen me I go crazy because I can't get the answer from all three at once // I ask someone to repeat the answer because I can't hear / I cant identify three voices talking at the same time // giving three different answers // it's very difficult / it's natural // this is when like speech etiquette comes in we call if 'etiquette' in Arabic / right? // speech etiquette // this is why students are asking to avoid disturbance because it is really hard for a teacher to hear more than two or three people give the answer at time // it is impossible I can't filter and it is natural and this is why I have to come in as a listener and say can you repeat // ok // there are things you can deal with and there are things you cannot deal you cannot solve // so when you go to your departments I'm sure you're going to remember this discussion but whether or not you're going to work on your weaknesses this is something I cannot control I cannot help you / but it's not difficult // how do I improve my listening? Though listening // how do I improve my speaking? / through speaking // the same with reading the same with writing // practice makes perfect // but as long as you know the subskills and the stages this will make the correction of your mistakes easier // this should help you / do you understand // the material I chose for you today is very important because each one has a weak point in his listening a weak point in his speaking // if you know that this is natural and each one has a different point then you can identify it very easily and work on it // and it's very easy to identify it look at the interviews you have a chart in the interviews look at the mark maybe you are not a very fluent speaker but you are very good listener look at the discussion we have in class you have the mark of the quiz if it's a good mark it means you don't have a problem and you are a good listener and speaker // if I ask a question and you give me a reply that has nothing to do with my question this means you have a problem with your speaking // right? // the critical level creative level think about them / it's very important for you improve your speaking and listening but the major thing here is listening // speaking can be improved the same way but you need to identify the problem and deal with it / clear? // any other comments or questions? // (student: unclear) // it happens to you to if I ask about what you had for lunch two days ago would you be able to remember immediately // no / but if I ask you when was the last time you saw X or Y you will remember easily you will say Saturday or Friday / right? // it depends on what you ask people to remember // if you ask me what I saw on TV yesterday I won't be able to remember easily // each one of us has the same brain capacity but our brains work in slightly different ways // this is what makes us different / it's normal // some people loose their memory // old people loose their memory // my grandmother didn't' know my in her nineties // she didn't know me // it's not a matter of not being able to see but she stairs at me and then she recognizes me // but but memory here is the memory of now when we say long term memory it doesn't mean it is the memory of the past // it means that it's the memory that stays // long term memory doesn't mean it's the past memory it's the memory that stays the active memory // (student: unclear) // somewhere in the brain I don't know // what I know what I have talked about today is a concentration on speech and language // I don't know this is something you can ask a neurologist and physician about // somewhere in the brain // this is very difficult by the way people have been working on this for a very long time this is the only material that is sure // there are so many other questions that people cannot answer // I'm sure this is not the first time you hear this / the brain is very difficult to understand // this information is fixed because so many people have done the same research and have found the same thing // got it ? / clear ? //

APPENDIX 9

Note Taking in Lectures in English:
A Ph.D. Study of Omani EFL University Students' Lecture Notes

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Dear Sirs/Madams,

I would first like to thank you for accepting to partake in the validation of this important part of this study. As the title above indicates, I am studying Omani EFL university students' lecture notes. What I am most interested in is investigating the 'effectiveness (or accuracy)' of students' lecture notes, i.e. whether the notes are good representations of the material presented in the lecture. You are kindly requested to mark the attached notes against the lecture outline attached and give a mark representing the total information units you find in the notes, as will be explained below. But first, this is a brief discussion of the study that inspired this investigation followed by a few guidelines which will help you carry out the marking:

Background

This investigation has been inspired by Hartley and Cameron's (1967) examination of the effectiveness of notes in which they assess the amount of information taken down by students in a lecture as compared with the amount of information actually communicated in the lecture. Howe and Godfrey (1978: 29-30) state that Hartley and Cameron used a lecture that contained unfamiliar information to the students, blackboard and visual aids of slides of experimental situations and results in graphical form. The students, unlike the lecturer, were unaware of the experiment. A recording was made of the lecture since the investigators were not delivering the lecture themselves. A transcript was easily made from the recording which was divided into 'informational units', such as the following:

> ...So this is his thesis, his principle, if you like. / In other words learning occurs by learning to avoid errors / or error factors. / And this leads us directly to the title of his main paper, which was called "Learning sets and Error factor theory"...

Then, the lecture was divided into sections of ten minutes each; the number of units found in each of these sections was recorded. After the lecture, the notes students took during the lecture were collected and marked. Each unit of information that appeared in the notes in whatever form, e.g. a word, or an abbreviated reference, was given one mark (or point). Then, Hartley and Cameron asked the lecturer to impose a restriction on the transcript of the lecture. Then based on this limitation, the lecturer was asked to estimate what he wanted the students to note down. This version of the transcript was then compared with the quality of the material noted by the students. In order to perform this comparison, the lecturer was asked to produce 'an "ideal" set of notes'. This set was analyzed in terms of informational units, and its content was compared with students' notes.

Data Collection for Current Study

Hartley and Cameron's (1967) idea of marking students' notes by counting information units against an ideal set of notes prepared by the lecturer of what should appear in the notes is the main method of measuring the effectiveness of notes in this study. The students were told that the lecture was important for their development in the speaking course within which the study was administered thus ensuring to an extent that they do not alter their behavior in the context in which they are being observed. The students were also informed that the material of the lecture would be tested in order to indirectly encourage them to take notes. Although this might raise an ethical question concerning the need to mislead the students, it seemed quite necessary to do so for class observations show that students do not tend to take notes unless directly asked to do so or after seeing the urgency of doing so for future tests or assignments.

The lecture was tape recorded. This was explained to the students as simply to keep a record of it. A transcript was made from the recording which was then compared with the lecture outline initially prepared by the lecturer in order to make sure the key points and supporting details of the outline were discussed clearly before marking the students' notes. The original outline was then amended by adding or deleting some information units. Thus, the amended outline represents an ideal list of the information units the students' notes should contain from the point of view of the lecturer. Hence, outline attached is an improved version of the original outline prepared for one of the lectures in this study from which the notes you are marking were taken.

Marking

Since I delivered the lecture myself, I was able to limit the amount of information appearing in the transcript in order to select only what I believe the students needed to note down following the technique that Hartley and Cameron used of preparing ideal notes against which the students' notes are compared. This was useful in helping to disregard the repetitions and redundancies in the lecture transcript-two factors common in lectures. Thus, the lecture outline attached contains the key words and supporting ideas that I wanted the students to note down from the lecture. The following steps should help you mark the notes quickly and efficiently:

1. Read the outline.
2. Count the number of information units in the outline against which you will mark the notes.
3. Give one mark (or point) for each unit of information that appears in the notes in whatever form - be it a word, a phrase, an abbreviated reference, or even a symbol. This means that you need to count the number of information units in the notes.
4. **Write the mark representing the number of information units found in the notes out of the number of information units contained in the attached outline.**

Thank you for you kind assistance.

Lecture Outline: The Brain, the Speech Chain, and Listening

I. Introduction:

- The topic is how speech is produced and how it is analysed
- The brain consists of two parts: left and right
- In the early 19th century Franz Joseph Gall wondered why some students are more intelligent than others. He founded the theory of localization: different parts of the brain control different abilities
- Gall's amazing view on language localization in the front lobe of the brain based on his observations of articulate classmates who has protruding eyes-language pushes the eyes forward thus making them look bigger
- In the middle of 19th century Paul Broca and Carl Wernicke (who were neurologists: 'neuro-' for 'nerve', '-ology' for 'science' and '-ists' for 'persons who study a science') support Gall's theory of localization and found: damage to certain areas in the brain (particularly the left part) correlates with loss of certain linguistic abilities
- Broca's area is responsible for speech production
- Wernicke's area is responsible for speech perception
- Both areas are located in the left hemisphere of the brain which is why we call it the linguistic left

II. Body

A. The Speech Chain

- A chain is a string of circles attached to each other. We say chain, cycle or circle because the events are repeated
- The message is encoded by the speaker and decoded by the listener
- The sound waves are vocalized by the speaker and picked up by the listener
- When I want to say something, the decisions of what I say start in the brain in the linguistic level
- I choose vocabulary items suitable to express my message
- Then I put the vocabulary into a grammatical structure
- I use the vocal organs and the mouth muscles to produce the message in the form of sound wave
- I use motor nerves which connect the brain to the mouth to give signals to the mouth and vocal organs to produce the sound wave
- The sound wave is the actual sound produced to give a message and the idea or message communicated
- The physiological level is the level that starts as the sounds are actually being produced
- Physiological relates to the muscles and nerves
- Physiological level starts right after the brain gives orders through motor nerves to the mouth and vocal organs to produce sounds
- The sound wave is also called the acoustic level
- When the sound reaches the listener's ears it is processed and analysed. This is called perception

- The sound wave is received and goes to the listener's brain through sensory nerves which also means we are using the physiological level here because it involves the nerves and the brain parts and the action of transmitting the message
- Then we reach the linguistic level in the listener's brain
- The listener identifies the incoming sounds, syntax and meaning using knowledge of the language
- The listener recognizes the sound then categorizes the message into thought groups which have structure
- Then after breaking the message into parts the message provides meaning or ideas
- Thus the speech chain is working as an operation in reverse- an idea is formulated and given through sound by the speaker and from sound an idea is formulated by the listener

B. The Difference Between Hearing and Listening

Hearing is recognizing a signal or receive a sound; it is the first step to listening

Listening is hearing a signal and interpreting it; it involves the ability to hear a sound and interpret it

Listening involves making up a message from what you hear using the rules you have about the language to comprehend the message

Useful Terms:

a. Comprehension: understanding something
b. Perception: the initial processing of the input; the initial step to listening
c. Understanding: comprehension of a message; the end product of listening
d. Recognition: realizing the meaning of what is being said and relate it to what you already know; relating an idea to something you can remember

C. Stages of Speech Perception

1. The Reception or Filtering Stage

   The listener makes phonetic decisions on the message and selects important information based on his purpose of listening

2. The Identification and Categorization Stage
   - It involves segmentation. The listener identifies and groups the words and ideas he finds from the previous stage into groups. The listener anticipates and readjusts the interpretation of the message
   - The listener also makes grammatical and lexical decisions at this stage
   - Lexical relates to vocabulary
3. The Recoding Stage
   - It means to code again.
   - Speaking is also called encoding
   - Listening is also called decoding
   - It involves the recirculation of the material before the comprehended information perceived enters the long-term memory which happens by holding the message in the short-term memory, then selecting the gist which is later stored in the long-term memory.
   - The message is thought about many times before a final decision about its meaning is reached and stored in the long-term memory.

- Short-term memory is active from the moment the message is received and perceived until it is understood
- Long-term memory is the memory which stores the final idea or message for later use

D. Listening Sub-Skills

Skill is a decision. The following is my personal categorization of listening sub-skills based on the literature

1. Literal Skills

   These are very basic decisions that work on the raw input to make initial phonetic, grammatical and lexical decisions concerning the flow of speech.

2. Inferential Skills

   These involve listening between the lines to try to find connections between the ideas as well as hidden or other meanings in the message.

3. Critical Skills

   These relate to the judgments made about the message and about the consequences of the message

4. Creative Skills

   These relate to the decisions made about the proper way to reply to the message and the actual reply given in any form such as asking questions or giving a comment

E. Note Taking

- Many of what is said about listening in general and listening sub-skills above apply to note taking. For example, if you don't select or filter what you hear and select some information and leave out others you will not be able to take useful notes. So purpose is something you need to have when you take notes in order to limit what you take down.
- Attention is also important for taking notes.

III. Conclusion

- When trying to deal with weakness in skills, you must identify your weakness first in order to address it.
- If you have a problem with the input itself, try to ask the speaker to raise his/her voice, repeat, or slow down, depending on the problem you are facing. This is part of being a creative listener.
- Try to improve your listening skills through listening more and improve your speaking through speaking. Check the charts I used to mark your interviews for the course and see which area you are week in: fluency, accuracy, question formation...etc and then practice to perfect that area.
- Long-term memory does not mean the memory of the past. It means the active memory in which we store the useful information that we expect to use.
- There are still many questions that human being cannot answer about what happens in the brain when speech is produced or analyzed, but the discussion we had was a collection of information that is taken from the literature that we can depend on and consider the foundation of our understanding of the brain processes.

APPENDIX 10

Marking Chart

Aspect	
Type of Notes	
Visual Aids	
Abbreviations and Symbols	
Words	
Phrases	
Sentences	
Total Mark	

APPENDIX 11

Lecture Outline Number One: Problems Facing EFL Learners

I. Introduction

- This discussion is related to the in-house unit on Education.
- Who are EFL learners?
- Teachers are aware of these problems.
- Teachers are blamed for some of them.
- Are you prepared for an education now at the university.
- Some may be overcome.

II. Body

A. Psychological Problems: Apply to studying in a different environment and are caused by:

1. Examples:
    a. Everything in the environment is new:
        - teachers' accents,
        - Arabic is not used in lectures,
        - the curriculum,
        - the amount of information that you learn is greater.
    b. Fear of the Unknown:
    c. Homesickness
2. Can be overcome by:
    a. Pinpointing the problems and trying to think of the advantages of living away from home.
    b. Concentrating on day-by-day activities.
    c. Acting as a responsible and independent human being.
    d. Enjoying activities and passing time usefully.

B. Cultural Problems

Also apply to studying in a different environment and are caused by:

1. Examples:
    a. New Accommodation, food, money, roommates' disturbance, etc.
    b. New customs and routines.
2. Can be overcome by being open-minded and adaptable.

C. Linguistic Problems: Apply to every learner in any environment:

1. Listening and Understanding

    a. There is a big difference between learning English at high-school vs. English at university.

    - No language labs in high-school: where you,

    - have booths and separate tape recorders.
    - listen on you own to information that is suitable to your level.

- have a clear tape with no background noise or distractions.
- In high school some teachers used Arabic in lectures.

b. Difference between hearing and listening: Hearing is the first step to listening.

- When you hear something you only allow it to go into your ears not really processing it.
- When you listen to something you process it and understands it; your brain analyses it.

c. Reasons for linguistic problems:

- Teachers speak very quickly.
- Variety of accents.
- Variety of styles of speech in different contexts.
- Little everyday practice.

d. Solutions to linguistic problems:

- Attend all classes.
- Use language labs.
- Listen to programmes, watch TV.
- Take every opportunity to speak.
- Take notes.

2. Fluent Speaking: most complain about the difficulty of expressing an idea in mind. Solutions to speaking problems:
   a. Simplifying the language.
   b. Using familiar vocabulary.
   c. Think in English not in Arabic; don't translating from Arabic into English.
   d. Practice speaking with a friend.
   e. Notice the English or the type of English, formal vs. informal, used by people in different situations.
3. Effective Reading

a. Strategies of effective reading, i.e. reading with understanding:

- Strategies differ from one text to another; books, units, chapters, are read differently.
- You need to do four things before you start reading a book, for example:

  - Make sure you know why you are reading, your purpose of reading, e.g. to answer a question or to find evidence, etc .
  - Know what you are going to read about from the contents in beginning of the book or from the index in the end of the book where you have words and the page numbers.
  - Get an overview of the chapter, a general idea of the chapter, by skimming the introduction and the conclusion of the chapter.
  - Have a question in mind about what you read and answer through notes thus providing useful summary.

b. Speed reading; reading effectively and quickly:

- The aim is to increase speed of reading with comprehension.
- Kinds of readings speed differ from person to person and depend on purpose of reading:

- Slow speed for studying or memorizing material for exams.
- Average speed for readings novels and stories for enjoyment.
- Fast speed for skimming and scanning:
  + skimming means looking for the main idea of what you read
  + scanning means looking for certain information.

c. To test whether your reading is efficient:
- put a clock or a watch or a timer in front of you,
- read a paragraph with comprehension for one minute,
- stop reading and count the number of words that you read,
- reasonable average of the number of words read efficiently is 250 words per minute.
- Practice makes perfect. The more reading you do the better reader you become.

4. Learning Vocabulary Items:

a. Serious misconceptions about vocabulary:
- Many words in English have only one meaning. Words actually can have more than five meanings used in different contexts. Reason for this misconception:
  -In scientific study, most terms have one meaning to make them clear, e.g. 'earthquake' or 'genes', etc.
  -To simplify the way EFL learners learn meanings in high-schools, each word is given one meaning.
- Every word in English has an exact translation in the form of one word in the other language. In reality, some words are translated in the form of complete phrases rather than single words and vice versa, e.g. 'have lunch' in Arabic.
- Any word can be used in any situation – written or spoken, e.g. 'starts' vs. 'commences' and 'pig-headed' vs. 'determined', etc.

b. In order to learn vocabulary items in a foreign language:
- Observe words in their context; you need to know where to use the word.
- Look the words up in the dictionary to learn more about them.
- Repeat the words by using them in the correct contexts to help them become part of your active vocabulary, e.g. 'overcome' from the discussion of the unit about addiction.

III. Conclusion

1. The problem that you are facing in learning English are common.
2. Your teachers are aware of them.
3. The teacher is giving you independence. Try to become an independent learner.
4. Stop blaming the teachers for your problems.

APPENDIX 12

Lecture Outline Number Two: The Brain, the Speech Chain, and Listening

I. Introduction:

- The topic is how speech is produced and how it is analysed
- The brain consists of two parts: left and right
- In the early 19th century Franz Joseph Gall wondered why some students are more intelligent than others. He founded the theory of localization: different parts of the brain control different abilities
- Gall's amazing view on language localization in the front lobe of the brain based on his observations of articulate classmates who have protruding eyes-language pushes the eyes forward thus making them look bigger
- In the middle of 19th century Paul Broca and Carl Wernicke (who were neurologists: 'neuro-' for 'nerve', '-ology' for 'science' and '-ists' for 'persons who study a science') support Gall's theory of localization and found: damage to certain areas in the brain (particularly the left part) correlates with loss of certain linguistic abilities
- Broca's area is responsible for speech production
- Wernicke's area is responsible for speech perception
- Both areas are located in the left hemisphere of the brain which is why we call it the linguistic left

II. Body

A. The Speech Chain: Denes and Pinson (1963: 5)

1. Facts about the speech chain:
    a. A chain is a string of circles attached to each other. We say chain, cycle or circle because the events are repeated.
    b. The message is encoded by the speaker and decoded by the listener.
    c. The sound waves are vocalized by the speaker and picked up by the listener
2. The process of speech:
    a. When I want to say something, the decisions of what I say start in the brain in the linguistic level.
    b. I choose vocabulary items suitable to express my message.
    c. Then I put the vocabulary into a grammatical structure.
    d. I use the vocal organs and the mouth muscles to produce the message in the form of sound wave.
    e. I use motor nerves which connect the brain to the mouth to give signals to the mouth and vocal organs to produce the sound wave.
        - The sound wave is the actual sound produced to give a message and the idea or message communicated.
        - The sound wave is also called the acoustic level.
    f. Then I use the physiological level which is the level that starts as the sounds are actually being produced.
        - Physiological relates to the muscles and nerves.
        - Physiological level starts right after the brain gives orders through motor nerves to the mouth and vocal organs to produce sounds.
    g. When the sound reaches the listener's ears it is processed and analyzed. This is called perception.

h. The sound wave is received and goes to the listener's brain through sensory nerves which also means we are using the physiological level because it involves the nerves and the brain parts and the action of transmitting the message.
i. Then we reach the linguistic level in the listener's brain
j. The listener identifies the incoming sounds, syntax and meaning using knowledge of the language
k. The listener recognizes the sound then categorizes the message into thought groups which have structure
l. Then after breaking the message into parts the message provides meaning or ideas

3. Thus, the speech chain is working as an operation in reverse- an idea is formulated and given through sound by the speaker and from sound an idea is formulated by the listener

B. The Difference between Hearing and Listening:

1. Hearing is recognizing a signal or receiving a sound; it is the first step to listening.
2. Listening is hearing a signal and interpreting it; it involves the ability to hear a sound and interpret it.
3. Listening involves making up a message from what you hear using the rules you have about the language to comprehend the message.
4. Useful Terms:
   a. Comprehension: understanding something.
   b. Perception: the initial processing of the input; the initial step to listening.
   c. Understanding: comprehension of a message; the end product of listening.
   d. Recognition: realizing the meaning of what is being said and relating it to what you already know; relating an idea to something you can remember.

C. Stages of Speech Perception:

1. The Reception or Filtering Stage:
   The listener makes phonetic decisions on the message and selects important information based on his purpose of listening
2. The Identification and Categorization Stage; it involves segmentation:
   a. The listener identifies and groups the words and ideas he finds from the previous stage into groups and anticipates and readjusts the interpretation of the message.
   b. The listener also makes grammatical and lexical decisions at this stage. Lexical relates to vocabulary.
3. The Recoding Stage; recode means to code again.
   a. Speaking is also called encoding; listening is also called decoding.
   b. It involves the recirculation of the material before the comprehended information perceived enters the long-term memory. The message enters the long term memory by:
      - holding the message in the short-term memory,
      - selecting the gist,
      - the message is thought about many times before a final decision about its meaning is reached and stored in the long-term memory.

   c. Facts about memory:
      - Short-term memory is active from the moment the message is received and perceived until it is understood.

- Long-term memory is the memory which stores the final idea or message for later use

D. Listening Sub-Skills: Skill is a decision. The following is my personal categorization of listening sub-skills based on the literature

1. Literal Skills: These are very basic decisions that work on the raw input to make initial phonetic, grammatical and lexical decisions concerning the flow of speech.
2. Inferential Skills: These involve listening between the lines to try to find connections between the ideas as well as hidden or other meanings in the message.
3. Critical Skills: These relate to the judgments made about the message and about the consequences of the message
4. Creative Skills: These relate to the decisions made about the proper way to reply to the message and the actual reply given in any form such as asking questions or giving a comment

E. Note Taking: Facts about note taking:

1. Many of what is said about listening in general and listening sub-skills above apply to note taking. For example, if you don't select or filter what you hear and select some information and leave out others you will not be able to take useful notes.
2. Purpose is something you need to have when you take notes in order to limit what you take down.
3. Attention is also important for taking notes.

III. Conclusion

1. When trying to deal with weakness in skills, you must identify your weakness first in order to address it.
2. If you have a problem with the input itself, try to ask the speaker to raise his/her voice, repeat, or slow down, depending on the problem you are facing. This is part of being a creative listener.
3. Try to improve your listening skills through listening more and improve your speaking through speaking. Check the interview charts to see which area you are week in: fluency, accuracy, question formation...etc and then practice to perfect that area.
4. Long-term memory does not mean the memory of the past. It means the active memory in which we store the useful information that we expect to use.
5. There are still many questions that human being cannot answer about what happens in the brain when speech is produced or analyzed, but the discussion we had was a collection of information that is taken from the literature that we can depend on and consider the foundation of our understanding of the brain processes.

Lecture Visual

The Speech Chain: Denes and Pinson (1963: 5)

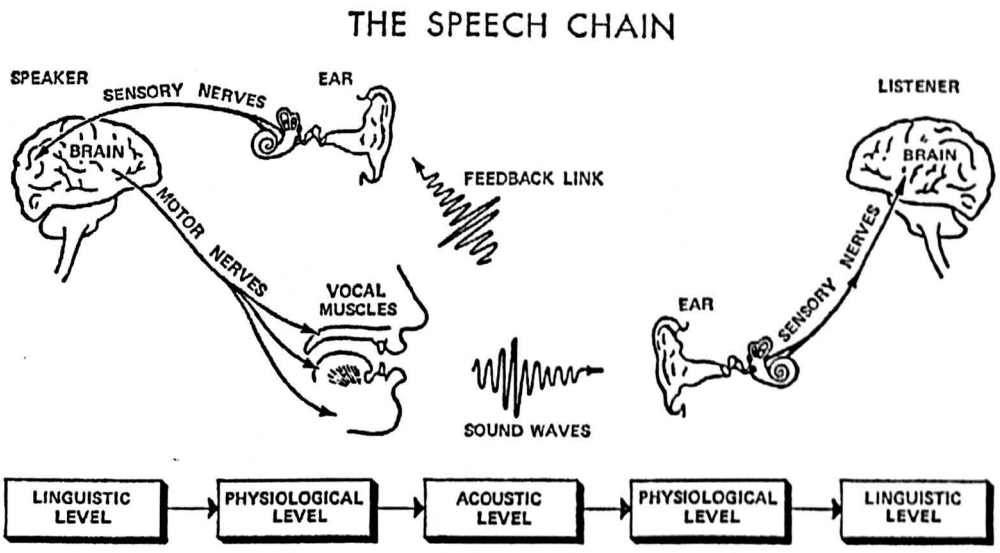


Fig. 1. The Speech Chain: the different forms in which a spoken message exists in its progress from the mind of the speaker to the mind of the listener.

APPENDIX 13

REPLIES OF SAMPLE IN INTERVIEWS AND QUESTIONNAIRES

Control Group

Control Group	First Interview	Second Interview	Third Interview
1 Noora	Takes notes in some lectures of only useful information and reviews them before tests and next lecture.	Needs training in NT. Has not been trained in NT from lectures.	Prepares for all lectures by studying the textbook chapters assigned by the lecturers. Formulates questions and writes them down. Reviews notes the same day and before tests.
6 Sumaya	Takes notes in some lectures of useful information to understand the lectures and reviews them before tests.	Needs training in NT. Has not been trained in NT from lectures.	Prepares for some lectures by studying the textbook chapters assigned by the lecturers. Sometimes formulates questions and writes them down. Reviews notes the same week and before tests.
7 Khalid b	Takes notes in all lectures of main points, details and example and reviews them before tests.	Needs training in NT. Has been trained in NT from lectures in the intensive programme. Has been trained in using symbols and abbreviations in notes.	Prepares for some lectures by studying the textbook chapters assigned by the lecturers. Formulates questions but does not write them down. Sometimes reviews notes the same week and before tests. The NT training was useful. It involved 2 lectures in which he was taught how to use symbols and different NT methods.
13 Hamed	Takes notes in some lectures of only new information to understand the lectures and reviews them before tests.	Does not need training in NT. Has not been trained in NT from lectures.	Prepares for some lectures by studying the textbook chapters assigned by the lecturers. Does not formulate questions. Sometimes reviews notes before tests.
14 Samer	Takes notes in some lectures of only useful information and reviews them before tests or next lecture.	Needs training in NT. Has not been trained in NT from lectures.	Prepares for some lectures by studying the textbook chapters assigned by the lecturers. Sometimes formulates questions but does not write them down. Reviews notes before next lectures and before tests.

Experimental Group

Experimental Group	First Interview	Second Interview	Third Interview
1 Mariam	Takes notes in some lectures of only useful and new information and vocabulary and reviews them before tests.	Needs training in NT. Has not been trained in NT from lectures.	Prepares for some lectures by mainly studying the textbook chapters assigned by the lecturers and sometimes using books from the library. Sometimes formulates questions and writes them down. Reviews notes before tests.
2 Bushra	Takes notes in some lectures of useful and new information and main points and details and reviews them before tests.	Needs training in NT. Has not been trained in NT from lectures.	Prepares for all lectures by studying the textbook chapters assigned by the lecturers. Sometimes formulates questions but does not write them down. Sometimes reviews notes the same week, before next lectures and before tests.
8 Rashid	Takes notes in some lectures of main points and details to easily review the information before tests. Compares notes with textbook.	Needs training in NT. Has not been trained in NT from lectures.	Prepares for some lectures by studying the textbook chapters assigned by the lecturers. Sometimes formulates questions and writes them down. Sometimes reviews notes the same week and before tests.
9 Abeer	Takes notes in some lectures of useful and new information and reviews them before tests and next lecture.	Needs training in NT. Has not been trained in NT from lectures.	Prepares for some lectures by mainly studying the textbook chapters assigned by the lecturers and sometimes using books from the library. Formulates questions and writes them down. Reviews notes the same day, the same week and before tests.
12 Hilal	Takes notes in some lectures of main points to understand lectures and easily review notes before tests.	Needs training in NT. Has not been trained in NT from lectures.	Prepares for all lectures by studying the textbook chapters assigned by the lecturers. Sometimes formulates questions but does not write them down. Reviews notes the same day and before tests.
14 Khlood	Does not take notes because not used to it. Cannot concentrate on listening to lectures while writing. Does not like writing. Thinks textbooks provide more useful information than lectures.	Needs training in NT. Has been trained in NT from lectures in the intensive programme. Has been introduced to using abbreviations in notes.	Prepares for some lectures by mainly studying the textbook chapters assigned by the lecturers and sometimes using books from the library. Formulates questions and writes them down. Sometimes reviews notes before tests. The NT training involved 1 lecture on using abbreviations in notes. It was useful but not enough.

REPLIES OF SAMPLE TO QUESTIONNAIRES

Control Group

Control Group	First Questionnaire	Third Questionnaire	Fourth Questionnaire
1 Noora	Always: makes sense of notes and can read handwriting after lectures. Sometimes: uses symbols and abbreviations, tries to write down every word, leaves space in notes, Never: translates to Arabic to write down, takes notes without understanding.	Finds it easy and beneficial to answer questions and take notes while listening to lectures. Usually feels tired in the end of lectures. Writes down new words and looks them up later in the dictionary.	Had difficulty explaining points, used too much technical language, and did not provide a summary.
6 Sumaya	Always: can read handwriting after lectures. Sometimes: uses symbols and abbreviations, tries to write down every word, translates to Arabic to write down, makes sense of notes after lectures, and rewrites notes neatly after lectures. Never: leaves space in notes, and takes notes without understanding.	Finds it easy to taking notes and answer questions while listening to lectures. Fatigue makes attention fade. Usually feels tired in the middle of lectures. High speed of delivery affects negatively on comprehension. Prefers male lecturers. Writes down new words even when meaning unclear. Takes notes in lectures delivered in Arabic in a different way as those in English lectures where notes are shorter.	Did not start and finish on time, did not provide a clear opening, had difficulty explaining points, not happy with own knowledge, did not provide clear links, and did not give enough time for copying and note taking.
7 Khalid b	Always: translates to Arabic to write down, feels anxious when find difficulty to understand, can read handwriting after lectures. Sometimes: knows lecture topics, uses symbols and abbreviations, tries to write down every word, takes notes without understanding, daydreams, makes sense of notes after lecture, rewrites notes neatly. Never: leaves space in notes, adds to notes from books, compares with other students	Finds it easy to taking notes while listening to lectures. Thinking of other things or daydreaming makes attention fade. Usually feels tired in the end of lectures when feeling bored. High speed of delivery affects negatively on comprehension. No difference between male and female lecturers. Writes down new words and looks them up later in the dictionary. Takes notes in lectures delivered in Arabic. Sometimes take notes in lectures delivered in English using	Had difficulty timing the lecture, assumed too much knowledge on the students' part, did not provide clear links, and did not give enough time for copying and note taking.

	after lectures.	Arabic words then translates them into English.	
13 Hamed	Always: feels anxious when find difficulty to understand, makes sense of notes and can read handwriting after lectures. Sometimes: knows lecture topics, uses symbols and abbreviations, tries to write down every word, daydreams, rewrites notes neatly. Never: leaves space in notes, translates to Arabic to write down, takes notes without understanding, adds to notes from books, compares with other students after lectures.	Finds it sometimes easy to answer questions while listening to lectures. Irrelevant information presented by lecturers makes attention fade. Usually feels tired in the beginning of lectures but then gets active as lectures progress. High speed of delivery affects negatively on comprehension. Prefers female lecturers because they treat students fairly and are more helpful. Writes down new words and looks them up later in the dictionary. Takes notes in lectures delivered in English more than those in Arabic because the former offers new information.	Did not organize lecture, did not start and finish on time, felt nervous and anxious, said too much too quickly, had difficulty timing lecture, not happy with own knowledge.
14 Samer	Always: tries to write down every word, leaves space in notes, feels anxious when find difficulty to understand, can read handwriting after lectures, compares with other students and rewrites notes neatly after lectures. Sometimes: knows lecture topics, uses symbols and abbreviations, translates to Arabic to write down, daydreams, makes sense of notes after lectures. Never: takes notes without understanding, adds to notes from books after lectures.	Finds it easy to take notes and answer questions while listening to only simple lectures, but complicated topics are difficult to follow. Information presented without examples make attention fade. Usually feels tired in the beginning of afternoon lectures and end of morning lectures. High speed of delivery affects negatively on comprehension and slow speed makes lectures boring. No difference between male and female lecturers. Writes down new words and looks them up later in the dictionary. Does not takes notes in lectures delivered in Arabic.	Did not provide enough examples, did not start and finish on time, felt nervous and anxious, did not provide clear opening, did not provide a summary, did not provide clear links, and did not give enough time for copying and note taking.

Experimental Group

Experimental Group	First Questionnaire	Third Questionnaire	Fourth Questionnaire
1 Mariam	Always: knows lecture topics, leaves space in notes, and can read handwriting after lectures. Sometimes: uses symbols and abbreviations, tries to write down every word, translates to Arabic to write down, daydreams, feels anxious when find difficulty to understand, makes sense of notes and adds to notes from books and compares with other students after lectures. Never: takes notes without understanding and rewrites notes neatly.	Does not find it easy to taking notes and answer questions while listening to lectures. Thinking of other things or daydreaming makes attention fade. Usually feels tired in the end of lectures when feeling tired or bored. High speed of delivery affects negatively on comprehension. No difference between male and female lecturers. Writes down new words and looks them up later in the dictionary or asks lecturers for help. Takes notes in lectures delivered in Arabic the same way as in those delivered in English but takes more notes in English lectures to ensure comprehension.	Said too much too quickly.
2 Bushra	Always: knows lecture topics, feels anxious when find difficulty to understand, makes sense of notes and can read handwriting after lectures. Sometimes: uses symbols and abbreviations, translates to Arabic to write down, takes notes without understanding, daydreams, compares with other students and rewrites notes neatly after lectures. Never: tries to write down every word, adds to notes from books and leaves space in notes.	Does not find it easy to taking notes and answer questions while listening to lectures. Thinking of points that are unclear makes attention fade. Usually feels tired in the end of lectures. High speed of delivery affects negatively on comprehension. No difference between male and female lecturers. Writes down new words even if meaning unknown and spelling not perfect and looks them up later in the dictionary. Takes notes in lectures delivered in Arabic the same way as in those delivered in English- writes main points and adds to them.	Did not provide a summary.
8 Rashid	Always: knows lecture	Sometimes finds it easy to taking	Did not provide examples and

	topics, makes sense of notes and can read handwriting after lectures. Sometimes: uses symbols and abbreviations, daydreams, feels anxious when find difficulty to understand, adds to notes from books and rewrites notes neatly. Never: tries to write down every word, leaves space in notes, translates to Arabic to write down, takes notes without understanding and compares with other students after lectures.	notes and answer questions while listening to lectures. Too many information in lectures makes attention fade. Usually feels tired in the end of lectures. High speed of delivery affects negatively on note taking. No difference between male and female lecturers. Writes down new words and looks them up later in the dictionary. Takes notes in lectures delivered in Arabic the same way as in those delivered in English but uses more key words in Arabic lectures than in English.	assumed too much knowledge on students' part.
9 Abeer	Always: can read handwriting after lectures and rewrites notes neatly. Sometimes: knows lecture topics, uses symbols and abbreviations, tries to write down every word, leaves space in notes, daydreams, feels anxious when find difficulty to understand, makes sense of notes, adds to notes from books and compares with other students after lectures. Never: translates to Arabic to write down, and takes notes without understanding.	Does not find it easy to taking notes while listening to lectures. Long and boring lectures makes attention fade. Usually feels tired in the middle of lectures. High speed of delivery sometimes affects negatively on comprehension. No difference between male and female lecturers. Writes down new words even if meaning unknown and looks them up later in the dictionary. Takes notes in lectures delivered in Arabic in a different way as in those delivered in English.	Did not organize lecture, had difficulty explaining points, used too much technical language, assumed too much knowledge on students' part and not happy with own knowledge.
12 Hilal	Always: translates to Arabic to write down and feels anxious when find difficulty to understand. Sometimes: knows lecture topics, uses symbols and abbreviations, tries to write down every word, daydreams, makes sense of notes, can read handwriting and rewrites notes neatly after lectures. Never: leaves space in notes, takes notes without understanding, adds to notes from books and compares with other	Finds it easy to taking notes while listening to lectures that contain only simple information. Personal problems makes attention fade. Usually feels tired in the end of lectures. High speed of delivery affects negatively on comprehension. No difference between male and female lecturers. Writes down new words even if meaning unknown and looks them up later in the dictionary to translate them. Takes notes in lectures delivered in Arabic in the same way as in those delivered in English.	Did not give enough time for copying and note taking.

	students after lectures.		
14 Khlood	Always: daydreams. Sometimes: knows lecture topics. Never: uses symbols and abbreviations, tries to write down every word, and feels anxious when find difficulty to understand. Non applicable: makes sense of notes and can read handwriting after lectures, adds to notes from books and rewrites notes neatly, leaves space in notes, translates to Arabic to write down, takes notes without understanding and compares with other students after lectures.	Finds it easy to listen and answer questions but not take notes while listening to lectures for it distracts her from what the lecturers say. Not studying for the lectures and not being able to understand the information they contain make attention fade. Usually feels tired when lectures are boring. Slow speed of delivery makes lectures boring. Prefers male lecturers for they give female students more chances to participate in class. Writes down new words. Does not takes notes in lectures delivered in Arabic.	Felt nervous and anxious, not happy with own knowledge and did not give enough time for copying and note taking.

APPENDIX 14 Noora Ahmed **Noora**

● notes of Education discussion

First Lecture

we are going to talk about English foreign language learners. **Page 1**

. Some Proplems facing EfL learners.
1. Psychological problems.
2. cultural problems.
3. linguistic Problem- 1. listening
4. 2- Speaking
4 writting 3. Reading
. we have to be aware from this problems to develop or selves.

1. Psychological belong to the
* environment of study. for example
• High secondry school.
• The university.
diffrences → . How teacher dealing.
. The way of tought.
* Living away from our families.
~~2. Cultural Problems~~
* . home sikness. missing our family and our home.

the Salve → 1. Dealing our problems if not- End up with weak enjoy our

independece.
- meet news people - Enjoy our time
- learned alot of things in dorm

2. Cultural problems:
→ sameller to Psychological problem
→ its related to environment.
Solve → to be open minded
↳ to use to deal with others.
for example → Living with forign country.

. Languistic Problems.
↳ it doesn't belong to environment, but it related to person anywhere.

A. listening → understanding.
diffrent the between hearing and listening.
Solve .. taking notes.. pay attintion all time
. traying to Imittate others.
this problem → It start from school because
→ The teachers are: Arab or indian.
they discrip or explin in Arabic.
. Students havn't suitable learning, listining.
The way to praltice → by listning to the tape and in Listening lab.

the reason why we can't listening.
→ the teachers speak to fast.
it is difficult to understand.

→ avirty accenssse.
different teachers.
→ the teachers use informal instead
formal language

to solve it → listen to alot of programms
. attend classes and following the teacher
. instruction.
. take ever oppreatunity to talk
in class.

B. Speaking.
most of students have this problems.
. They have difficulty to express the idea.

→ to solve it simplfy the language
that you tring to use.
→ prepare for lecture.
→ think in English → saying some
thing correcte / very important.
→ notes the English that used by
people.
for example → imitate an actor or
news presenter.

C. Reading: 4 strategies of effective reading (reading and understanding).

1. first: why you're reading the book?
the question will help you to
get the information.
beable to find your aims.

2. Second: What you're going to read?

3. third → getting an over view (general idea)
→ by reading the introduction and conclusion.
Asking ourselves questions and looking for it while you're reading.

4. fourth → reading speed.
Three type of reading are
1- The slow reading → preaping for test → for example (reading notes).
2- The average speed → in the middle.
→ for example → (novel - stories).
3- The fastes → skimming and skanning.

★ atrick. to improve your reading
. choes a text not read before
put a watch
. read the text one minute.
. go back count the number
of words you read.
if you read it and the words.
are 250 it 250 is perfect.
less 250 → improve it
more 250 → you're very good.
. guess the vocabulary.

2. Vocabulary.
few things to develope or voublary.
- many words have more than 1 meaning. Students has miss-c mistake.
. many students tought in high school that the word have one meaning..
. Every word in English has an edact translation in Arabic. thats wrong.
. people think they know one word they used it any where.

do
. How Do I increase my vocabulary?
- need pay attintion in class.
- Looking for words in the dictionary
- observe the context and where it used.
- imitate the words

- Education writting
  it realted to speak.
  - undestand the structure of paragraph

- way to resolue
  → don't make the mistake
  tousice or repeated again.
  → recognize our mistakes.

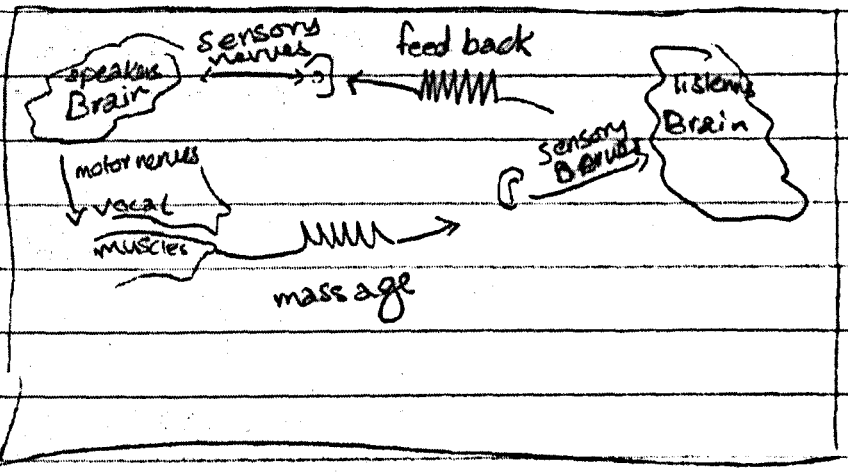
Education is the responsibilty of
student in the first.
than it is thersponiblity of
the teachers and books.

Test week (Test) Nov 2

Final Lecture

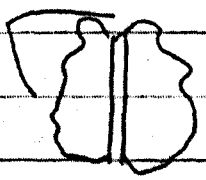
The speech chain

Linguistic level → Speakers Brain
Physiological level → Motor Nerves + Vocal muscles.
Acoustic level → Sound waves
Physiological level → Sensory nerves
linguistic level → listener's Brain



- Paul Broca
- Carl wernicke } → neurologists

Broca's
Wernick's
area



right ↑ ↑ left
hemisphere

- Stage of speech Reception

1. The Reception stage
2. The Identification and categorization stage
3. The Recoding stage
4.

How we prduce speech and how we

→ Speech something discoverd by:-

words for theorm * *

Communicating.

- The speaker and what happend when he want to say any thing →

- In left hemisphere → Broca + wernickes area name of two sintence (language.
→ They relaize from studying. experince of → studying the damage they relaize that the language prodwe in left himosphere.
(left) / → language production + listening.

gal → said (sat down look at his friends he make theory that the language → and talk. put his hand in head / // → their eyes.
↳ study by paint + card sported → gal theory

How I speak :-

w Start in speaker Brain in language Hc
Level → have an Idea.
Put it in words
use vocabulary → in order
→ using grammers → using sounds (in the mouth
toung + the roof of toung + the teeth)
* through motor nerves → I get message
send
→ Physiological level → related to nerves
and shape of mouth.

Sound wave (acoustic level) → Sound.
↳ it send to listener → sensory nerves
→ using Brain to process.

in the (X) opposite → in the listeners
Brain

The cycle will returned (*) reply

diffrenceess between. hearing and listening.
hearing → we hear without focus / recive sa
listenning → Proccess → translated focus.
↳ the ability to hear and translated

the picture is listening, but the
hearing is the first stage

Speaking called code (put it in certin way) in code ⇒

listning → decoding → build massage processing we go into stages.

defrentence the sound (the Listeners).

first time youu hear sound → hearing sound taken in to sensory nerves → Brain → reception (→ this) understaing → is the end of product (reception).

↳ give the feed baeke.

↳ recognition → from recognize.

We heand it and it stonde in the memory

↳ Storing Something in the memory

interpotion → the process of cuting Idea and think about it

comprehation → interption and understanding

while → The way we listen.

(from pick up sound until understand)

→ the first stage (fultter stage)

paying attintion 2 some one (hear his voice)

↳ paying attintoin 2 his Idea.

→ analize the sound → fixed up what the person said → put in phontic.

→ the porpose of listening got it. help me

→ wait Stang. / cut the massage to piceller

→ Sound + vocablary + Grammer → meaning

→ applay all the rules of langage

the listeners → Reception → Identification →
lead to another stages until
the listener got the Idead
* the recoding → decoding and comunte.
↳ make disicion → * correct the dicision.
↳ to reach the final interpation.
long term memory * put the Idea.
making justments until being
put it in the long term memory

Generlly speaking
the massage → recive → proceess (short term me
→ the main information selected → catogriza
→ store in long term memory)

(*) leturel level
(listening is skill) → all the stages is subskills
infration levels ... when we listen to question
we shend guess why this questions are asked.
→ next level (*) critical level/
judging the Idea * Know the porpose
anzlize the massage
(*) ↳ crative level → giving feed back
(answers + comments) → writting

(* Maryam Al-Kharousi)

APPENDIX 15

Mariam

Speaking

- new information for students and ~~the~~ teacher
- try to put this word in simple languages
- you need to think in english
- ✓ = practic speaking as possible
- ✓ = notes ~~to~~ the type of languge use in diffferens environment or interviews

Reading

(affective reading)

strategy when u read

You need ⟹ read book

① make sure why u are reading ?
to find evidnse or to find answer fo

② what u going to read ?
in index or content
↓
scan to the page which has the inf

③ get an overview
↓
reading introduction and conduction

④ you need to have a option of the topic whch I want to read.

⑤ Take some note → to be more attention

* mouse if you off-itintly reader

* the speed

slow — when u are memoraize preaper for ateast

average — for enjoyment story or novel

the high — we are seeming → search for main Redia
scaning → " " speafic edia

** Read pragraph with
* combrehantion and count yo. speed
250 word in 1 m

problem about teachers aware of

- study in different environment inside (school environment)
  - Class room environment
    - teacher, curriculum, more vocabulary
  - house environment (big issue)
- Fear of the unknown
- The solution
  - Pinpoint your problem
  - Try to solve it
  - enjoy your time

cultral Problems

- it is the result of studying in different environment.
  - correlation, food, friendsheep
- getting use about custom
  - type of people - customs ..
- The Solution
  - Pinpoint your problems → openminded, adaptable
  - except people as they are; try to get use to people around
  - try to see what is the good thing and the bad thing in a person

Linguistic Problems

They applied to every environment → you learn the language as you learn in your house but in another place

- listening and understanding
  - Why you have problems in listening and understan

independent

- type is clear
- hearing → without understanding
- listening → need - must understanding

→ the speaker → talk fastly

* different pronounciation

→

* Solution

- attend all you class
- go to listening lab → watching program (Radio, TV) video

○ Speaking

↳ you have idea in your mind but you don't have the vocabulary and grammar

→ try to put your ideas in simple sentence

→ think in English.

→ start with simple thing

→ use the dictionary to find some vocabulary.

→ practice speaking (with a friend)

→ notice the way that people using the language.

○ Reading:

→ effective reading

1. make sure why you are reading? — answer — evaluate
2. what are you going to read? — content — index
3. Get an overview (general idea) → introduction conclusion
4. Ask yourself a specific question?

○ efficiency reading (comprehention)

- slow speed → when to prepair or memoraise sth
- average speed → novel or story for enjoying
- fast speed → skimming → look for main idea

scan → look for certain information

→ Put watch and read a paragraph → with comprehension (1 min) good reader

then count the words that you read (250 / 1 minute)

→ vocab many → misconsebtion

① - most English words have many meaning.

② - most scientific words have one meaning.

③ - every Eng word has an expect translate in arabic.

- ↳ not every word in english have exact traslation.

→ To increse you vocab

→ look the words up in dictionary → and try to use them

→ read more.

→ imitate the words

Bushra

Final Lecture

Page 1

The Speech chain:

- linguistic level → speaker Brain
- physiological level → Motor Nerves + Vocab muscles
- Acoustical level → sound wave
- Physisological level → sensory nerves
- linguistic level → listener's Brain

Paul Broca, Carl Wernicke } neurologists

Broca's area, Wernick's area

left ↑ right hemisphere

Stages of Speech Perception

1/ The Reception stage

2/ The Identification and Categorization stage

3/ The Recoding stage

- speaking → recoding
- listening → decoding

Speech is analysis in 3 step and each step involve in only

Listening

Memory is the first step in the listening, the ability to recieve a sound

~~Coop~~ subskills

Listenning subskills.

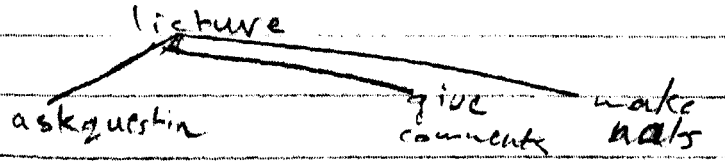
1 literal → related to the very basic surface lang
use the language → Phonetic, Syntactic,

Final Lecture

2 interpretical level
↳ to listen between the lines

3. critical level → analys

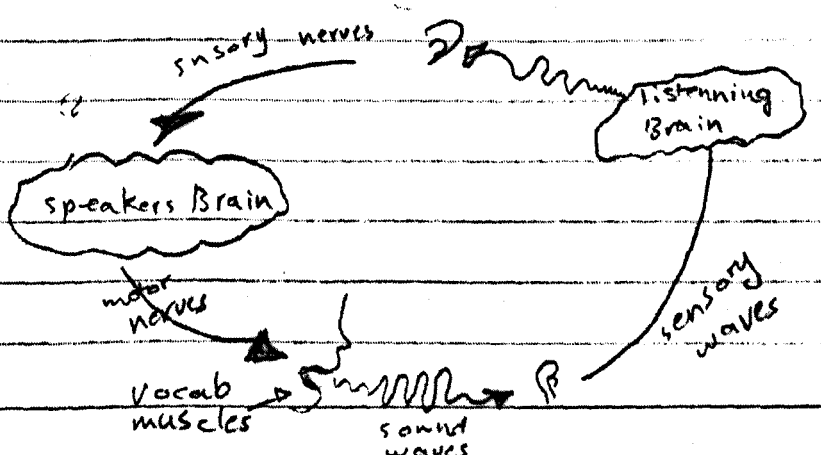
4 creative → as a listener she will becam speaker
↳ make responses to what the speaker sa



wich part is weak in

Listenning is the key of Note Taking

improve your weakness in Listenning by listenning
" " " " Speaking by speaking



identify

التاريخ / / ١٤ ..... اليوم

APPENDIX 17

listening

sup skills

Abeer

1- letteral → surface language

Sound → gramar → meaning

I'm very angry → (F) very good job (F)

to know that

creat

3- creative :- replay → she is creating language

became a speaker . make responses to what speaers say .

in lecture :- ask que + comment + notes

Felter → تجاهل واحد

وتتبع واحد وتركز عليه

focus on One and ignore others

Samir Salim 55231 **APPENDIX 18**

The Speech Chain

Samer

linguistic level ← Speakers Brain

Physiological level ← Motor Nerves + vocal muscles

Acoustic level ← Sound Waves

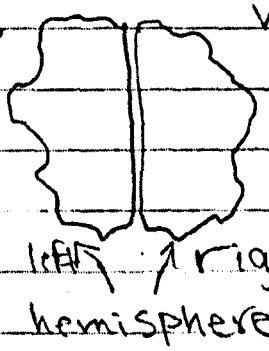
Physiological level ← Sensory nerves

linguistic level ← Listener's Brain

Paul Carl Broca, Wernick — neurologis

Stages of Speech Perception

1. The Reception Stage.
2. The Identification and Categorization Stage.
3. The Recoding Stage.



EFL → English foreign language

APPENDIX 19

Khlood

is more effective

good thinking is more

good ideas

think it can

think it can help

pen point

input

from and on

- hot potato...

Khulood Ahmad