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The Recall and Retention of New Vocabulary from Second Language Lessons

by

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Abstract

This study set out to take a close look at English language lessons and the individual language learner's ability to recall new words arising in those lessons. Learners were asked to report the new vocabulary items that they could recall immediately after a lesson. Many words were recalled and in some instances the same word was recalled by more than one learner whereas in others, learners recalled words not recalled by anyone else. Just under half of the words recalled, fitted the former category and just over half fitted the latter category.

The amount of vocabulary recalled by individuals varied enormously although the average recalled was 6 items per learner. The majority of these words were two syllable nouns with neutral, abstract connotations. Some part words were recalled also.

The rate of retention for these words was high over a six week period and some words which had originally been recalled only weakly (in other words without their meanings) came to be recalled strongly (or with their meaning as well) over time.

Trusting the learner as a reliable and valuable source of data in terms of reporting the conscious processes undergone during a lesson, the researcher documented each individual's introspections of the processes

involved in the noticing, recollection and retention of items of vocabulary from the lessons. The decision to investigate only those words recalled by more than a quarter of the learners was made fairly early in the study, as the researcher was keen to see why certain words were recalled by learners much more than others.

The learners gave reasons which could be grouped together under the headings of *Interaction with the Data, Classroom Interaction, Personal Agenda/ Priorities* and *Previous Learning/ Beyond the Classroom.* Reasons given most often related to the category of *Interaction with the Data.* The second largest group of reasons given for recall of new words from the lessons related to *Classroom Interaction.* It seemed that learners attributed noticing and recollection of new words to the fact that they had worked on the words in some way or been affected by qualities of the words themselves. In other words, they maintained that recall was due to the fact that they had interacted with the data presented in the lesson rather than interacted with the teacher or other students. Reasons relating to *Personal Agendas/ Priorities* and *Previous Learning/ Beyond the Classroom* were present in the study but did not form a significant part of all reasons given.

The researcher also decided to check if what learners had said was true in the case of events occurring in the classroom interaction and, at the same time, see if any trends could be ascertained in terms of links between features of the discourse and recall of new words. It was found that events

recalled by learners in the classroom interaction were borne out in almost all cases. What was more, nearly all words recalled by more than a quarter of learners had been 'mentioned' during the lesson. Words which had been 'repeated', 'focused upon', 'introduced then reintroduced' during the lesson and were at the centre of a lot of 'turn-taking' were more likely to be recalled. This was only true up to a certain point, however. Too much of any of these things seemed to produce a negative relationship with recall or the relationship already established, with a smaller amount of these variables present, remained unchanged. There appeared to be links between more student 'repetition' of words, and greater recall of that word, however, it was not necessary for learners to participate in the classroom interaction in order to recall large numbers of new words.

Overall, the study found that words which were made explicit in some way for learners and given attention during the lesson were likely to be recalled by more learners.

I certify that this thesis does not incorporate, without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education; and that to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where due reference is made in the text.

Date...............29/.i./97.....................

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Chapter 1 - *Introduction*

This chapter will look at the background to this research project and hopefully place it into a meaningful context for the reader. It will also outline the reasons for choosing to research this particular area of language learning and the purpose of the study. Finally, the significance of the study to the present state of the art in L2 language learning and teaching will be argued and terminology used frequently throughout the research project, defined.

1.1 Background to the Study: The Problem

Recently I timetabled myself to teach what was known as a Vocabulary Extension elective class at the ESL centre where I work. This elective class consisted of four hours per week teaching students from overseas enrolled in full-time English courses in the English Language Intensive Courses for Overseas Students programme.

Students study for 25 hours per week at the centre. The morning classes are either general English or English for Academic Purposes. The afternoon classes are designed to be a series of electives from which students can choose two courses of study. Other electives available, as well as the Vocabulary Extension elective, are writing, business English, word processing and so on.

Students have different aims and motivations for being at the centre. Some leave after 10 weeks and return to their home countries. Others stay longer and move through the levels while others go on to study in Bridging or Foundation Studies courses or gain direct entry into mainstream undergraduate and postgraduate degree courses offered by the university of which the centre is a part.

Teaching the Vocabulary Extension elective led me to not only question the effectiveness of such a course but also to consider the following questions:

Is there any single method, procedure or technique for vocabulary development that is superior to others?

Do learners acquire L2 vocabulary in the same way that they acquire L2 pronunciation or L2 grammar rules?

Do students notice, recall, retain or acquire the vocabulary that teachers teach?

What vocabulary do learners notice and recall from any lesson?

Do they retain this recalled vocabulary for any period of time?

Why do they recall the vocabulary that they do from lessons?

All of these questions crossed my mind after leaving the classroom each lesson. So I started to read previous research papers concerned with vocabulary development. A lot of comparative research has been done on the effectiveness of different procedures for facilitating short term vocabulary recall and long term vocabulary retention. Journals show there to be numerous examples of quasi-experimental and experimental studies which compare procedures such as the *keyword method* (elaborated upon in Chapter Two of this thesis) and guessing the meaning of new vocabulary from context.

After several hundred such pieces of research had been reviewed, I proceeded with the current research with the increasing conviction that method or procedure is only a small part of any learning experience in the classroom. Similarly, informal feedback from my own students in the Vocabulary Extension class seemed to suggest a diversity of opinions as to the best method for them of learning vocabulary.

Almost before the study had begun, the initial question regarding the effectiveness of any one teaching method seemed to be fading from my interest the more I investigated the background data. As a result, in time I decided to turn my attention away from any comparative study of teaching methods, and towards other factors that may influence the recall of new vocabulary and the consideration of the other questions outlined above. This involved taking a close look at L2 learning theories generally and then L2 vocabulary learning theories specifically and fitting the data gained from this present study into the overall picture of the area to date.

1.2 Significance and Purpose of the Study

Some reasons for this research have already been mentioned. These reasons were mostly expressed in terms of questions that the researcher had a personal interest in answering and which arose out of first hand experiences in the classroom and in particular the teaching of vocabulary. From a broader perspective, the purpose of the study was to take a close look at a small group of L2 learners in a classroom setting and, by observing the events of the lesson and asking the learners to reflect upon the events of the lesson, build up a picture of what actually happens in lessons. The hope was that techniques and strategies used by the learner and the teacher to aid vocabulary development would be revealed.

Overall the aim was to describe some of the processes that learners go through when exposed to new vocabulary and from an observer's perspective, to also describe the events surrounding the recall of certain vocabulary items. The study should shed some light on the researcher's loosely held hypotheses that there is no one vocabulary teaching approach that is right for all learners, that input needs to be linguistically rich in order for learners to be able to learn new vocabulary and that learners do not necessarily learn the vocabulary that teachers teach them.

The study should be significant to researchers of second language acquisition

(and, in particular, second language vocabulary development), cognitive psychologists and practising teachers of English as a second language, as it looks at the reflections by learners on the process of noticing and recalling new vocabulary from lessons.

The study only examined a relatively small sample of informants of similar nationalities, ages and motivations, in one particular classroom context, in one particular centre and describes their experiences in a lesson. Thus it could hardly be said that this study has wide generalisability. However, it is hoped that the study can add something to bodies of knowledge in the six main areas outlined below.

1   Second language acquisition theories.

2   Current views on metacognition, learning styles, learning strategies and techniques.

3   Research on classroom interaction.

4   Teacher education.

5   Teaching methodologies.

6   Research design.

1.3 Research Questions

In essence, the research is designed to address very broad research questions not prove hypotheses as such. The specific research questions are:

What vocabulary do adult English language learners recall and retain from lessons?

Why do they recall the vocabulary that they do?

1.4 Outline of the Thesis

The thesis is organised into 6 chapters. This introductory chapter gives the background to the research questions and the significance and purpose of the study.

Terms used in the study are elaborated upon at the end of the introductory chapter.

Chapter 2 is the literature review. This chapter looks at the state of the art in second language acquisition generally and vocabulary acquisition specifically and how these issues relate to the current study. It is divided into events that take place outside the learner such as input and interaction and those that take place inside the learner such as uptake, learner strategies and learner states of mind. The various theories and hypotheses to date are outlined and related to the current study. The last part of the chapter looks at vocabulary learning specifically and different methods and approaches that have been touted as effective in the development of second language vocabulary. The chapter finishes with an outline of the theoretical framework the researcher claims to be working within.

Chapter 3 outlines in some detail the method used by the researcher to collect the data and the methodological rationale behind this approach. The background behind the choice of research design and test instruments is then explained. Following this the procedure is explained in detail and the objectives behind each step stated alongside a full analysis of the sample of informants used in the study. Finally, the constraints observed on the research design, the sample and the data analysis are expounded upon.

Chapter 4 examines the data collected and gives details of how results were arrived at. Findings are listed and details of methods of analysis included alongside the results. As there were many different findings they are divided up into psycholinguistic characteristics of the words recalled by informa..ts, long term retention of the words recalled, reasons given by informants for recall of new vocabulary and an analysis of the discourse of the classroom interaction and links with the recall of new words by informants. This chapter limits itself to simply reporting from the data collected. No attempts at discussion of these results are attempted until Chapter 5.

Chapter 5 is the discussion chapter. Findings reported in the previous chapter are related back to the literature reviewed in Chapter 2 and hypotheses stated in the literature confirmed, refuted or just discussed in the light of the data gathered and analysed in Chapter 4. The research design used in the study is discussed alongside psycholinguistic considerations amounting from the results obtained in Chapter 4 and the implications of these results for language

learning and retention.

Conclusions from this study and recommendations for further avenues of study in the same project and any future research are made in Chapter 6. In order to refresh the reader's memory there is an overview of the research questions asked followed by a brief summary of the main findings and the implications for pedagogy in terms of materials and methodology. Ways in which the current study could be improved upon next time and directions for future research in the same area are suggested.

Finally, references and appendices are collated together at the back of the thesis. The appendices contain lists of the words recalled by different individuals and their word for word reflections about the recall of words in the lessons. Transcripts highlighting how analyses were conducted, the interaction pattern of each lesson and the materials used in the lessons, are included here.

1.5 Glossary of Terms

Comprehensible Output

This term was first coined by Swain and refers to output or language produced by the learner that is comprehensible to the receiver.

Comprehensible Input

A term coined by Krashen (1981) with his comprehensible input hypothesis. In this study it is used to mean input that the learner can understand and is capable of taking in either because it is at the right level of linguistic difficulty or slightly beyond the learner's linguistic competence.

EL Learners

This refers to learners of the English language. Previously, these learners were termed learners of EFL (see above) by the British and ESOL (see above) by Australians. Recently, the terminology has been changed to learners of **EL.**

English as a Second Language (ESL)

This means different things to different people, depending upon the country in which it is being used. In the USA, for example, it is used to refer to what has been called EFL by the British (see above). In other countries it refers to the role of English for immigrant or minority groups in English speaking countries where English is required as a medium for communication at work or school but the L1 is usually used at home. In Australia this is sometimes called ESOL

(English for Speakers of Other Languages). It can also refer to the role of English in countries in which it is used as a medium of instruction at school or work, by the government or for day to day communication. Examples of this are seen in places such as Singapore, India and The Philippines.

English as a Foreign Language (EFL)

According to Richards, Platt and Weber (1985) this describes the role of English in certain countries. It may be taught in schools but it is not used as a medium for instruction nor is it used as a language of communication in government or business or industry.

Explicit Knowledge

Knowledge about language such as rules of use which is brought to the attention of learners and used to help them learn the language. A learner's explicit linguistic knowledge is that knowledge that can be reported upon and is often referred to as 'conscious learning' and learning by instruction.

Focus

This was termed *topicalisation* by Slimani (1989) and refers to the act of focusing upon or paying attention to particular language items during the lesson. For a fuller definition see Chapter IV.

High Input Generators

A term coined by Seliger (1977) to refer to learners in a classroom situation

who participate in the classroom interaction thus providing input for other learners in that lesson.

Implicit Knowledge

Knowledge of a language that is intuitive and unable to be reported by the learner. A learner's L1 usually falls into this category and can be referred to as *unconscious learning*. It fits with the idea of *incidental learning*.

Incomprehensible Input

An idea put forward by White (1987a), Faerch and Kasper (1986) and Sharwood Smith (1986) that it is a learner's failure to understand a sentence which can force the learner to pay closer attention to that sentence in order to gain clues as to its meaning. Only when grammar is incomprehensible will there be any driving force for change.

Input

Any language or linguistic data which a learner hears or receives from which he or she can learn.

Intake

This is the input that is taken in by the learner or used by the learner.

Interaction

This refers to the process in which the teacher and the students, the students

and the students, or in this study, the students and the data act upon each other in the classroom.

L2

Second Language

Language Learning

The process by which language is learnt. This is often distinguished from language acquisition. The former has come to mean learning in a formal classroom environment or more specifically learning through instruction. Some researchers such as Krashen (1981) do not recognise the process of language learning, maintaining that language can only be acquired (see below). In this current study the two terms are used interchangeably as it is difficult to demonstrate whether language has been *'learnt'* or *'acquired'* and researchers disagree as to what kind of performance provides the best evidence of either occurring.

Language Acquisition

The process by which language is learnt is called language acquisition by some. This is because of the research done into first language development. Acquisition has come to mean an unconscious, natural process whereby learners acquire an L1 or L2 merely by being exposed to it and without being taught or corrected. In this study it is used to refer to learning or a more permanent state of learning that is resistant to the passing of time.

Low Input Generators

A term again coined by Seliger(1977) to refer to learners who do not participate in the classroom interaction or only participate marginally creating little input for other learners in the lesson.

Negotiation of Input

Input is made more comprehensible when the speaker and the learner engage in questions and answers about that input therefore enabling input to be modified. Long's ideas (1985a) about conversational *adjustments* are based on this premise.

Output

This is the opposite to input and refers to what the learner does with the intake. In other words, the productive skills of speaking and writing refer to learner output.

Recall

This refers to the act of remembering something from the lesson almost immediately after the lesson. In this study words not only needed to be remembered for their form but also for their meaning.

Retention

This refers to the act of continuing to recall something from a lesson after considerable time has elapsed, e.g. weeks or months. Again, in this study,

meaning and form had to be remembered for the word to be deemed retained.

Spectator Interaction or Eavesdropping

This occurs when learners are not directly involved in the classroom interaction but still benefit from it.

Uptake

This refers to what the learner claims to have learnt from the lesson. Slimani (1989) used uptake charts to record the reflections of learners. She asked them why they had recalled certain items of language from the lessons they had attended.

Vocabulary

In this thesis, vocabulary is taken to mean lexical items or lexemes. The latter are defined as the smallest units in the meaning system of a language that can be distinguished from other similar units by Richards, Platt and Weber (1985). They go on to add that lexemes are regarded as the same lexeme when inflected and 'each lexeme merits a separate entry or sub-entry in a dictionary.'

1.6 Overview of the Chapter

In this chapter we looked at the background to this study and events leading up to the current researcher's decision to investigate the questions:

What vocabulary do adult English language (EL) learners recall and retain from lessons?

Why do they recall and retain the vocabulary that they do?

The significance of the study to current research and pedagogy and the researchers purpose in conducting the research were also outlined and a brief glossary of necessary terms provided, alongside an outline of the thesis organisation as a whole.

In Chapter 2 previous research which has a bearing on the current study is reviewed and links drawn between the main findings of previous studies and the expected findings of the current study. This very small study is placed into the wider context of language learning and, in particular, vocabulary learning.

Chapter 2 - *Literature Review*

When asking the research questions: *What vocabulary do adult EL learners recall or retain from lessons and why do they recall the words that they do?* it is necessary to look at studies that have been done on second language acquisition and in particular second language vocabulary acquisition over the years and from these piece together what has been established to date regarding these questions.

Reviewing literature that is concerned with answers to the following questions should set a backdrop for the questions and subsequent answers suggested by the data collected for this study.

Does input have any effect on recall?

What kind of input affects recall?

Does interaction affect recall?

What aspects of interaction affect recall?

What are the necessary preconditions for recall of new vocabulary items?

Do learners recall and retain differently? Why?

Ellis, in his book *Understanding Second Language Acquisition* published in 1985, divided his chapters into *inside the learner* and *outside the learner*. This seems to me a very valid way of looking at the literature concerned with language acquisition. He also names his chapters: *Input and Interaction and*

Learner Strategies. I have chosen to organise the abundance of literature which is relevant to this present study in the same way. *Inside* and *Outside* are envisaged more on a continuum, however, starting with *Input* and moving to *Interaction* and then what has been called *Uptake.*

The first part of the chapter looks at the literature concerned with input. It focuses on the theories and hypotheses that have been advanced. The second part focuses on interaction in the classroom and other aspects of classroom behaviour and the third part reviews the literature related to uptake and the reasons for it, then moves into learner strategies and affective states. After that the literature review moves away from the 'inside/ outside' paradigm and there is a section devoted to looking at the learning of vocabulary specifically as opposed to language acquisition generally. The final section looks at the theoretical framework that the study is set within.

2.1 Outside the Learner - Input

Input is defined in the *Longman Dictionary of Applied Linguistics* (1985, p143) as 'language which a learner hears or receives and from which he or she can learn.' The value and role of input in the acquisition of language has long been debated and remains controversial. Input has been viewed from several perspectives. The first is that of the Behaviourists who see a direct relationship between input and output and ignore the idea of any internal processing on

route. The second, is that of the Mentalists who see input as essential in as far as it 'triggers' internal language processing. The third perspective is that of the Interactionists. The so-called Cognitive Interactionists maintained that input does have a determining function in language acquisition but only within the constraints imposed by the learner's internal mechanisms. The social interactionists hold that verbal interaction is of the utmost importance for language learning. The ideas behind all of these perspectives will be considered in the light of this present study. It is my feeling however, before even examining the data, that a combination of these principles can operate in the learning of new vocabulary.

Alongside the different perspectives, there are four broad approaches to the study of input. The first relates the frequency of linguistic features in the input to the frequency of linguistic features seen in the output of the learner. The second looks at the importance of comprehensible input to learners and the third examines the role of learner output in interaction. The third approach really fits in better with the idea of uptake so it will be considered later on in the chapter. The hypothesis that forms the basis for the first approach is summed up below.

2.1.1 *The Frequency Hypothesis*

This hypothesis states that the order of second language acquisition is determined by the frequency with which different linguistic items occur in the input and was first suggested by Hatch and Wagner-Gough (1976). This

hypothesis was the result of examining L1 development and noticing that certain items appeared more frequently in the language of children due to the limitedness of the range of topics around them and therefore these items emerged in the learner's output before others. This hypothesis also went hand in hand with the L2 accuracy order in acquisition idea, one of the proponents of which was Krashen with his Natural Order Hypothesis. This hypothesis is detailed below.

2.1.2 The Natural Process Hypothesis

Natural processes underlie what Felix (1981) has called 'natural abilities' of learners. These abilities help learners to deal with learning a second language. Krashen maintains that teachers often make students practise language when their natural processes are not yet ready for internalisation and he argues that learners are best left to just 'encounter' the language using strategies which best suit their own independent ways of learning.

This hypothesis, like Pienemann's ideas on *teachability* and *learnability* (1989), claims that learners use natural processes to determine the order of acquisition of language. This 'natural order' will operate despite efforts of instruction to intervene in the learner's acquisition because learners appear to learn languages in predetermined sequences or orders even in instructional settings. ESL morpheme acquisition studies done by Dulay and Burt (1974) Bailey, Madden and Krashen (1974) and Larsen-Freeman (1976) support this hypothesis. However, they do not relate these ideas specifically to vocabulary

acquisition. The present study will look at vocabulary recalled from lessons to see if any pattern can be established in the type of vocabulary that is recalled and if frequency of exposure aids recall. Do learners who are at a particular stage in their L2 development learn one syllable words more easily than two syllable words, for example, or concrete words before abstract words? The implications of predetermined sequences for vocabulary development are fairly far reaching. First of all, if there is a desirable sequence for learning vocabulary, course books designed to be used by second language learners will need to take this into account alongside their grading of structures and functions of language and the task of designing a syllabus will become even more difficult than it already is. Secondly, if there is no predetermined sequence for acquiring vocabulary it seems that many of the course books that aim to teach beginner learners of English may need to rethink their policy of only equipping these students with one syllable words lest they prove to be too challenging for them.

The hypotheses most associated with the second approach or the idea of comprehensible input are those advanced by Krashen.His hypotheses about the nature of input necessary for learners to acquire language have been the subject of much discussion over the years. It should be noted at this point that he makes a clear distinction between *learnt* knowledge and *acquired* knowledge and insists that *learnt* cannot be turned into *acquired* The hypotheses that he proposes are outlined below.

2.1.3 The Input Hypothesis

Krashen (1981, 1982) and Prabhu (1987) both claim that linguistic development is best facilitated when learners' do not consciously focus upon the language to be learnt. This belief is based upon Krashen's hypothesis that second language acquisition takes place when learners encounter language items in situations which make input *comprehensible* and not through explicit focus upon teaching items. Prabhu would argue further that it is only by engaging learners in a task, in which they are forced to utilise the language at their disposal to complete the task successfully, that language will be acquired.

Krashen's hypothesis in its purest form gives no credit to explicit teaching. This notion is also explored by Pienemann, who investigated 'whether language is teachable' and 'what language teaching can model and what it cannot' (Pienemann, 1989, p52). He emphasises that the classroom is only one source of language learning and the other is 'the unguided process of natural acquisition' which takes place in general stages that all learners must pass through (1989,p53). Bialystok and Frohlich (1978) and Sharwood-Smith (1981) soften this stance in their claims that what is explicitly taught can later be turned into implicit knowledge.

Krashen also claims that there is a direct link between comprehensibility of input and acquisition. Researchers such as Larsen-Freeman (1983), Gregg (1984), Sharwood Smith (1986), Faerch and Kasper (1986a), White (1987a),

Gass (1988), Doughty (1991) and Ellis (1990a and 1991a) have sought to disprove this or at least question it.

Larsen-Freeman (1983) argues that learners can uptake useful information about an L2 without necessarily understanding it. She gives the phonology of an L2 as an example and the fact that learners work on unmodified input to gain input that they can learn from (p.278).

The idea of the necessity of comprehensible input to language acquisition has also been de-emphasised by Sharwood Smith(1986) who again argues that comprehension and acquisition are not the same and that input has a 'dual relevance' - one kind helps learners to interpret meaning and another kind is used by learners to advance their interlanguages.

Faerch and Kasper(1986a) argue that it is only when there is a 'gap' present between what the learner brings to the input and the input (and essentially that this 'gap' is perceived by the learner) that acquisition takes place.

White (1987a) makes some of the most radical claims. Amongst many ideas she states that learners are capable of going beyond the input by projecting from their existing knowledge. Indeed, in some cases ,she argues it could be the failure to understand on the part of the learner that leads to learning in the end. In other words, she is proposing a hypothesis based on the idea of the necessity of *incomprehensible input*. Reflecting the views of Faerch and

Kasper (1986) and Sharwood Smith(1986), she maintains that it is the failure to understand that is the driving force behind a learner paying closer attention to the input in order to gain clues to meaning. Gass (1988, p.278) adds to this by observing that it is not comprehensible input that need in order to acquire language but comprehended input.

Finally, Doughty (1991) has questioned the positive relationship between comprehension and acquisition. Her study concludes that what is important for acquisition is the necessity of drawing learners' attention to particular forms. This may involve making language forms salient for learners such as highlighting certain features in the material or building redundancy (frequency of language items) into the tasks. The importance of redundancy fits in with *The Frequency Hypothesis* and is one hypothesis that will be examined when analysing the data for the present study.

All of the above hypotheses have very important implications for my study and will be examined in the light of the information obtained from the learners in the study. The claims about incomprehensible input may or may not be supported by reasons given by learners for why they recalled certain vocabulary items from the lesson.

My own position with regard to all of the above hypotheses, is that it is probably a combination of explicit teaching and mere exposure to language that facilitates acquisition. Some aspects of language can be learnt by just being

exposed to them in situations that occur repeatedly (formulaic type language), others require explicit attention and if not total incomprehensibility of input at least partial incomprehensibility of input ,before noticing, recall and retention are activated. Vocabulary needs explicit attention in order for it to be noticed and recalled. Part of the noticeability of the vocabulary item is its incomprehensibility. To date, studies focusing only on the uptake of vocabulary from lessons or the process of vocabulary acquisition are in rather short supply. Therefore this idea will be investigated in the present study.

2.1.4 Interaction

As mentioned above there are two perspectives to the ideas put forward by the Interactionists: that of the Social Interactionists who claim that verbal interaction is of crucial importance to the process of language learning and that of the Cognitive Interactionists who vary their claims but who generally state that input has a determining function in language acquisition but only within the constraints imposed by the internal mechanisms of the learner.

To begin with we will look at the ideas of the social interactionists, as any study concerned with classroom interaction (as this one is) needs to have investigated the literature in this area before making any claims. Allwright (1984) examined and proposed his own version of the interaction hypothesis, the basic tenets of which are outlined below.

2.1.5 The Interaction Hypothesis

Allwright (1984) looked at 'learning opportunities' which were created when interaction took place during language lessons. In other words, interactive work created what became available to be learnt rather than any plan or method executed by the teacher. In its strong form, the hypothesis advocates not merely that learning opportunities are created through interaction but that interaction itself is the process whereby we learn. Such a hypothesis suggests the need to examine teaching, learning and instruction through close examination of interactive work between teachers and students and student and students.

Any investigation of interaction in the classroom also necessitates a study of the wider scenario of the classroom as an environment. Interaction , like all the variables present in any lesson, does not exist in a void but rather coexists with many other elements in the classroom environment. The differing functions of the classroom come together alongside the events within any lesson to make each lesson experienced by learners a unique experience.

Breen (1985) breaks down the roles of a classroom into:
1. experimental laboratory
2. discourse
3. culture.

He also identifies collective and individual learning experiences. The former have been researched extensively by people such as Day (1984) and Seliger

(1977) who looked at the nature and effect of interaction between second language acquirers and native speakers.

Seliger looked in particular at *high input generators* or learners who interact intensively, seeking out opportunities to use second language and *low input generators*, those learners who avoid interacting or play relatively passive roles in language interaction situations. He found that high input generators make higher achievers than low input generators and that interaction type is a determining factor in second language acquisition. Some smaller studies conducted since then have tended to confirm his results although pointing out that it is not useful to think of learners as either HIGs or LIGs but rather as falling on a continuum between the two (McMahon, 1993).

Like Seliger, Richard Day (1984) explored the relationship between student participation in the classroom and level of proficiency in English, use of the target language outside the classroom and field sensitivity. Unlike Seliger he concluded that 'there was no significant relationship' between classroom participation and scores of an oral interview and close test. Day had more subjects in his study and used a different method of assessing participation. Seliger counted every speech act as participation whereas Day ignored private interactions between students and coded participation into 'responses to teacher general solicits and 'self-initiated turns'.

The study also questioned the necessity for learners to be directly or overtly

involved in interaction in order to profit from it in linguistic terms. This idea of the effectiveness of *spectator interaction* or learners who silently attend to other learners' involvement, has been explored by Allwright (1984), Ellis (1984a) and Slimani (1987). Schumann (1977) also looked at the possibilities of this as an effective strategy for learning a language and termed it 'eavesdropping'. Pica (1992) found no significant differences in the comprehension of learners who observed other learners interacting but did not interact themselves and those who actively participated.

The value of spectator interaction as an aid to the noticing and recall of new vocabulary could be confirmed or negated in the present study. Observation of the classroom interaction, and the statements provided by the learners about their learning experience in the lesson may add to the corpus of data on spectator interaction already documented over the years.

Another researcher to explore the effects of classroom interaction on language learning is Ellis (1985). He disregards the idea of the teacher being able to set the agenda for learning, maintaining that classroom discourse cannot be planned for but is constructed by the contributions of teachers and learners. In his Interactional Framework study (1984b) he espoused the acquisitional value of 'message oriented' interactions rather than 'imitation response feedback' (IRF) (Sinclair and Coulthard 1975). However, in another study (1984a) he found that not only did classroom participation not affect performance but that in fact learners who interacted very little made the best progress. The studies,

however, were inconclusive.

Another key proponent of the importance of comprehensible input and the role of interaction in making input comprehensible is Long (1983b). He stresses the importance of interactional modifications that can occur when meaning is being negotiated and argues the superiority of interactive input over non-interactive input. To date there has been a lot more research done on the relationship between interactive input and comprehension than interactive input and linguistic/conversational adjustments and language acquisition probably because the research design needed for the latter is much more problematic.

Long defines his idea of *conversational adjustments* as the negotiation that takes place between the native speaker and the learner about the input they are receiving. Examples of conversational adjustments used by native speakers are such 'strategies' as conversational devices used to avoid trouble, relinquish topic control, select salient topics and check comprehension. 'Tactics' include repairing trouble such as topic switching and requests for clarification. Those that can be either strategies or tactics are slow pace, repeating utterances and stressing key words. The learner can either contribute directly to the negotiation of meaning or simply give signals that the input (now made comprehensible) has been understood.

Long managed to get around the problem of researching possible links between interactive input and linguistic/conversational adjustments by

suggesting that:

1. We show that linguistic/conversational adjustments aid comprehension of input

2. We then show that comprehensible input can promote language acquisition

3. We therefore deduce that linguistic/conversational adjustments promote language acquisition

This may be a good way of tackling the question of whether or not conversational adjustments aid acquisition of language once a way of proving step 2 has been finalised but until this hypothesis has been verified step 3 cannot be proven.

In terms of negotiated meaning being beneficial to comprehension, several studies have proved that interactionally modified input improves comprehension of oral instructions (Pica, Young and Doughty, 1987; Loschky, 1989; Tanaka, 1991 and Yamakazi, 1991). These studies compared: 1. unmodified input 2. premodified input and 3. Interactionally modified input. The opportunity for negotiation caused a lot of repetition and rephrasing which meant that a lot more input was available with 3. than with 1. or 2. thus rendering the results questionable and making it unclear whether it was the quality of the input that had contributed to comprehension or the quantity.

The value of negotiating input may be revealed in the comments made by learners about their reasons for recall in the present study. An even more

interesting line of enquiry would be to ask if negotiation is restricted to native speaker and learner (or even learner and learner) and if it has to be verbal. Is it possible for learners to negotiate cognitively with themselves (or with the data provided) about the meaning of a word? The present study looks at this possibility.

2.1.6 The Effects of Error Correction During Interaction

Another feature of interaction to be investigated is the effect of error correction on language acquisition. Many hypotheses on how we learn language (such as Krashen's) play down the importance of error correction. Recent studies by Dekeyser (1993) found that error correction during oral communicative activities did not seem to have a significant overall effect on student achievement or proficiency but did interact with some individual difference variables. For example, after systematic error correction, students who tested out highly on pre-tests did well in post-tests as did poorly motivated students. However, students with high motivation tended to do better without error correction as did students with low anxiety. The difference in individual needs is emphasised here. The type of feedback (i.e. *cognitive* or *affective* as identified by Vigil and Oller, 1976) also needs to be considered.

Chaudron (1986) found that only 39% of the errors treated in his immersion classroom, resulted in successful uptake of these corrections by learners. On the face of it ,this might suggest that error correction is not beneficial to learning, however, error correction may contribute to acquisition in the long run

by raising learners' awareness of the problems. Only a longitudinal study would be able to tell.

Studies on self-correction as a cognitive strategy conducted by Green and Hecht (1993) found that self-correction could help learners improve their foreign language production by helping them with explicit and implicit knowledge about the language. Currently, the recommendation is, by people such as Van Lier (1988), that self repair is more conducive to language acquisition than other kinds of correction and less likely to result in a negative effect.

Whether error correction, either by the teacher or another student, aids recallability of vocabulary will be investigated in this study in the comments given by learners regarding their reasons for recall and retention.

2.2 Relevance of the Literature to the Current Study

The Value / Role of Input in the Language Learning Classroom
The background to this study was the researcher wondering if any of the vocabulary input provided for learners in lessons was made use of by learners and if it was made use of, how was it made use of? In other words, did vocabulary input provided by the teacher, other students and materials become intake by learners or did the learners have their own vocabulary intake

agenda? Did vocabulary input become vocabulary output or did it only serve to 'trigger' interest which led to the learning of some vocabulary whether that vocabulary be part of the vocabulary input or not? Furthermore, was it necessary for learners to interact with each other in order to learn new vocabulary?

These were not new questions by any means and the current researcher decided it would not be advisable to research such questions until previous theories and hypotheses related to the role of input in language learning had been examined and in turn made explicit for the reader.

In the current study, learners were asked what vocabulary they could recall from their lessons in an attempt to find out what input, if any, had become intake. How input became output, if indeed it did, was a question not only implicit in the many theories of language learning put forward, therefore, but a question central to this study.

Although most of the lessons observed by the current researcher were fairly teacher-fronted in their organisation, with few formal opportunities for interaction amongst students in terms of activities or tasks set by the teacher, students were usually seated in groups so they conversed with each other without being prompted to do so and involved themselves in teacher-student interaction. The current researcher was interested to know, therefore, the literature to date on the importance of classroom interaction to learning.

Learner perceptions of the role of interaction in learning vocabulary could be investigated and compared with previous statements made by researchers about the role of interaction in learning a language.

In a similar way, it was possible that comments made by learners as to why they had recalled certain items of vocabulary and not others, would add to the corpus of knowledge refuting or concurring with the necessity for comprehensible input in language learning. The basic tenets of this theory needed, therefore, to be examined by the researcher and outlined for the reader.

It was possible that observation of lessons and reflections made by learners would add weight to learning hypotheses such as *The Frequency Hypothesis* and *The Natural Processes Hypothesis*. Firstly, close analysis of the transcripts taken from the lessons used in the study could reveal that either new items of vocabulary recalled by learners had not arisen frequently during lessons or the converse. Similarly, the study might reveal that learners recalled words that were supposedly above their level of competence. Secondly, informants during interview might identify reasons for recall related to these hypotheses. They, therefore, formed an essential backdrop to any research asking the questions *What vocabulary do adult EL learners recall and retain from any lesson and why do they recall the vocabulary that they do?*

Finally, the latest ideas on the importance/ effectiveness of error correction in

language learning needed to be known in the event that learners attributed recall of certain items of vocabulary to feedback on an error or predictions about the meanings of the new words being wrong.

2.3 Inside the Learner - Uptake

A group of researchers at Lancaster University, led by Dick Allwright, have made it their goal to investigate how specific linguistic features are learnt during classroom interaction. Learners were asked to record everything they think they learnt during a lesson and this was termed *uptake* from the lesson. In other words, each item of language was traced in the discourse of the lesson to see what made it comprehensible or salient for students. Slimani (1989) was one of the first researchers to use this kind of research design. She particularly looked at 'learning opportunities' as Allwright (1984) had and tried to explore why certain items of language were uptaken by individual informants and others not. Her approach was to collect two types of data:

1.   Learners' specific claims collected through questionnaires.

2.   Detailed accounts of learning opportunities during lessons derived from 11 hours of audio recorded naturally occurring classroom data.

Data gained from 1. was not as rich as she had hoped so the majority of her findings were obtained from the procedure outlined in 2. Results indicated that neither learner participation nor negotiation of meaning led to uptake in these

instances (in fact she claimed that language learning proficiency was a cause of more participant interaction rather than a consequence of it). Students listening to other students or, as was termed earlier, *spectator interaction* had some effect on uptake but the single biggest contributing factor to uptake was *topicalisation* or focusing by the learner upon the language which arose in the lesson.Topicalisation was defined by Slimani as language that had somehow or another been focused upon during instruction or given prominence by being the topic of the conversation during the lesson. Prominence could be achieved by the teacher or students asking about the meaning, spelling or pronunciation of a language item.

The notion of uptake was an attempt by Slimani to circumvent the problems associated with trying to define learning. For the purposes of this study, I decided to define uptake not so much as what learners claimed to have learnt from a lesson but more what they recalled and possibly retained from a lesson. 'Learnt', it seemed to me was a very big claim, particularly as informants were not asked to use the uptaken language at any stage during the study but only asked to recall words in isolation.

Part of the difficulty of looking at the way students recall or remember vocabulary stems from the need to be sure of what is expected from a student who has 'learnt' vocabulary 'effectively' and a student who has 'retained' vocabulary 'effectively'. Performance can be divided into *productive* or *reflective* according to Stevick (1976, p107). The latter only involves the student in

'throwing back what is thrown at him/her'. The extreme of such performance is 'parroting' or 'mimicry'. Retelling stories and discussing a reading selection are also less extreme versions of reflective performance. Productive performance, on the other hand, does not start from a task based on following a language model that the teacher or textbook has given. Models are drawn from within the student himself/herself and from somewhere 'deeper' than with reflective learning. This 'deepness' has a 'more lasting value' for the learning of a language.

What we need to decide then in the design of any piece of research or test, is whether we are testing rote learning or meaningful learning , recall or retention. Meaningful learning only occurs when learners form relationships between the new information and prior knowledge or experience (Thelen, 1986). This present study was designed in such a way as to test recall and retention with learners required to attach meanings to the words they reported recalling from the lesson. Thus it was not a rote learning exercise as learners were asked to give their own meanings for words but at the same time, it was not testing meaningful learning as learners were not asked to use or make choices about the new vocabulary in a task.

Another way of looking at the learning of vocabulary is to divide vocabulary knowledge into *declarative* and *procedural* (Anderson, 1976,1980,1983; Ruddell, 1986; Robinson, 1989). Declarative knowledge equips the learner with knowledge about the meaning of words and can be possessed in an 'all or

none' manner. Procedural knowledge is acquired gradually (unlike declarative knowledge which can be acquired suddenly perhaps from being told by someone) by performing the skill. (Stahl, 1985, also uses the terms *definitional* and *contextual*). In assessing genuine acquisition or learning of new vocabulary, it needs to be decided if a learner must have achieved both in order for the words to be deemed 'learnt'.

Other researchers (Beck, McKeown and McCaslin, 1979) divide word knowledge into *unknown, acquainted* and *established*. Unknown refers to words not met before. Acquainted is recognition with some deliberation. An established word is one whose meaning is easily, rapidly and automatically recognised.

Perhaps the most common measure of vocabulary knowledge (and one especially used when referring to second language learners) is the distinction between acquiring knowledge of the meaning of a word and knowing a word well enough not only to aid in comprehension of a text (Williamson, 1989) but well enough to use it or produce it. This is the idea of *receptive* or *passive* vocabulary versus *productive* or *active* vocabulary. This concept needs to be considered when judging the learning of vocabulary.

Palmberg (1990, p1) admits that at present we know very little about 'how foreign language learners mental lexicons are organised'. He advocates a continuum between 'ability to make sense of a word' and 'ability to activate the

word automatically for productive purposes'. Therefore distinction between passive or active learning of a word is not cut and dried. For a particular learner, words may appear at different points along the continuum, between ability to make sense of a word and ability to activate the word automatically, regardless of the aim of the instruction.

Potential vocabulary may also be a useful categorisation (Berman, Buchbinder and Beznedeznych, 1968). This is encapsulated in the way:

a)   a student may have a word in his/her oral vocabulary but not yet in the visual vocabulary (i.e. the student can say the word but not write it).

b)   a student may understand a word but not be able to pronounce it (Goodman, 1970).

c)   a student may have what Levenston calls *Threshold* vocabulary (Palmberg, 1987 quoting Levenston) or 'tip of the tongue' vocabulary, where words are sometimes available and sometimes not.

d)   a student may recall only parts of words such as prefixes, suffixes and stems.

Another way of looking at uptake is in terms of *comprehensible output*. Swain (1985) is one of the chief proponents of this idea and first identified the *Output Hypothesis* which is outlined below.

2.3.1 The Output Hypothesis

This hypothesis states that we learn language by producing it. There are several versions but generally it maintains that when we try out rules or new vocabulary items and we achieve communicative success our conscious hypotheses about that rule or vocabulary item are confirmed and learning takes place. The reverse is also true. Students can output first and then receive feedback which is similar to inductive learning.

This study is concerned with measuring and analysing recall and reasons for recall rather than meaningful learning in the fullest sense. In order to assess the latter, informants would need to be tracked outside the classroom for models arising naturally and spontaneously from the informant without any controlled prompting. Using discrete tests of recall and retention in a controlled situation we cannot hope to investigate much more.

In general, therefore, in terms of the continuum of knowledge about each vocabulary item that it is possible for the learners to attain, I believe that this study has uncovered the *reflective* (Stevick, 1976) *procedural* (Ruddell 1986; Robinson 1989) and *acquainted* (McKeown and Beck 1988), knowledge of vocabulary items that arose in each lesson. It also examines the effect of output by the learners on retention of vocabulary items.

As mentioned earlier, Slimani (1989) found that there was a tendency for language that was topicalised or focused upon by students to be on the list of

lexical items claimed to have been learnt by students. This idea that language needs to be highlighted in some way for it to be acquired runs contrary to Krashen's argument in his *Natural Processes Hypothesis* and his *Input Hypothesis*. As a result of Krashen's hypotheses many studies have been carried out that focus upon 'conscious' versus 'unconscious' learning (Schmidt, 1990; McLaughlin, 1990)or on a larger scale *implicit* and *explicit* knowledge. Krashen and Bialystok were concerned with the role of formal instruction in L2 development and thus this distinction was made.

2.3.2 Explicit Knowledge Versus Implicit Knowledge

Explicit knowledge in SLA research is defined as knowledge that is available to the learner consciously. It is not the same as 'metalingual knowledge' (knowledge of the terminology for labelling linguistic concepts) but can be developed alongside it. By conscious learning researchers mean the role of consciousness in input processing or as Schmidt puts it 'the level of 'noticing' necessary for language learning (p29). Is it necessary to consciously 'pay attention in order to learn'?

Implicit knowledge can be formulaic knowledge or knowledge of chunks of language or rule-based knowledge which consists of generalised or abstract structures which have been internalised. Implicit knowledge is intuitive with learners not conscious of what they know.

Krashen's *acquired /learnt* distinction is an example of the *implicit /explicit*

debate. He aligns acquired language with implicit knowledge and learnt language with explicit knowledge. McLaughlin (1990), however, attacks Krashen and points out that claims regarding consciousness in second language learning cannot be made without an adequate theory to define what mental states are 'conscious' and which are 'unconscious' or 'sub-conscious'. Bialystok (1981a) bridges the two arguments by suggesting that in cognitive psychology the existence of both types of knowledge is widely recognised. One of the main proponents of 'consciousness' in learning is Schmidt (1990). He makes a distinction between three levels of consciousness. The first is consciousness as *awareness*. Within this there exists *perception* which is not necessarily conscious, *noticing* which is knowledge that is 'available for report' and requires focal awareness and *understanding* which involves conscious analysis. The second is consciousness as *intention*. Not all intentions are conscious. The third is consciousness as *knowledge*. All of these are on a continuum but it remains unclear where conscious knowledge can be marked exactly on this continuum.

Schmidt also suggests that the role of unconscious learning has been over-emphasised and that noticing (a very conscious event) is the way that input becomes intake. This intake is then stored in temporary memory and may or may not be incorporated into the learner's linguistic repertoire at some later date. The role of explicit knowledge may be made a little clearer in this current study by the ability of learners to comment upon their vocabulary learning experience during the lesson.

Researchers have also set out to examine the benefits of explicit instruction(focused upon aspects of the language) over incidental learning or learning that takes place without a focus on formal elements of language. Michael Long (1983) revived research related to the question Does second language instruction make a difference?' only to conclude that generally it does. He is therefore a proponent of the role of explicit instruction in language learning. Krashen, on the other hand, argues the case for incidental learning. The acquisition of vocabulary, he suggests, is no different to that of other language. It is a matter of the teacher ensuring comprehensive input which will interact with a specified internal language acquisition monitor within the learner to bring about acquisition. While you are acquiring you are focusing consciously on the message or content he argues, and not the form. Krashen bases his belief in incidental learning on research such as that done by Saragi, Nation and Heisler (1978), in which subjects were tested on vocabulary from the book *Clockwork Orange* (without any prior instruction to focus on vocabulary). Results showed considerable vocabulary acquisition.

Krashen (1989) went on to compare the results of vocabulary learnt from such 'Incidental Read and Test Studies' and found (no doubt to his annoyance) that test subjects did consistently better on the latter scheme than the former. However, the latter scheme also required a lot more time and effort and subjects did not have such a 'deep' knowledge of words. Nevertheless Krashen does concede in the face of such results that the data does not support a pure form of the *Input Hypothesis* (p454). Phillip Moore (1987) supports this view

when he says that ideally learning takes place via a process of both incidental and direct vocabulary instruction.

Other studies on first language learners report that there is limited or no effect of instruction on the learning of vocabulary (Corcoran, 1961; Nagy and Herman, 1984) but many (Beck, Lefertti and McKeown, 1982; McKeown, Beck Omanson and Pople, 1985; Stahl, 1986; Crow and Quigley, 1985) come out totally in support of the effectiveness of explicit vocabulary instruction over incidental learning.

One hypothesis that contrasts with the incidental learning hypothesis is *The Skill-Building Hypothesis*. The basic tenets of this hypothesis are outlined below.

2.3.3 The Skill -Building Hypothesis

According to the SBH we learn language by consciously learning individual rules or vocabulary items and make these rules automatic through drills, exercises or practice. In other words learning becomes acquisition. The strong version of this hypothesis insists that all our competence in language comes from skill-building. The weak version states only that it is one possible route and that other routes such as comprehensible input do exist. Skill-building is similar to deductive learning in its perspective.

The question of incidental learning versus formal instruction is one of the many issues surrounding language learning. Such issues are further complicated by the fact that inability to produce new language uptaken from a lesson immediately after that lesson might not necessarily mean that no new language has been uptaken. Lightbown(1983) found that 'learning' did not appear immediately after instruction (or if it did accuracy was low). Rather, there was a 'delayed effect' as though learning needed an 'incubation period' before emerging in the learners' performance. Unlike the present study, Lightbown is talking about learning and communicative competence not recall. What is more, her hypothesis is not strongly supported in the field. None the less such findings could have a direct bearing on this study as the research design is such that informants will be tested immediately after their lessons. Learners may not have had time to 'incubate' the new words which means test results may be low. However, if the 'incubation' idea is true, results on tests administered to the same informants two weeks and six weeks later should be markedly higher with meanings that were a little vague being clearer. Unfortunately, the tests in the study are designed to retest the vocabulary items offered by learners in the initial reflection exercise and do not leave any scope for words that learners recall at a later date to be acknowledged. Lightbown's hypothesis never the less needs to be kept in mind when conducting research designed like the present study.

So far we have concentrated on events in the classroom or lesson that seem to be somewhat out of the control of the learner. Schumann (1977) has put

forward the idea that the learner ultimately decides what will become intake according to whether a need for such intake is perceived by that learner. As such he is a proponent of *'The Personal Agenda Hypothesis'*, the basic claims of which are outlined below.

2.3.4 The Personal Agenda Hypothesis

This hypothesis claims that what the teacher plans to teach in a lesson and what the learner gets from a lesson can be totally different if that learner is not willing to learn according to this plan or is not interested in what the teacher offers. In other words, the learner comes with his or her own agenda for learning which cannot be over-ridden by the teacher's agenda. There is little evidence to date to support this hypothesis but Schumann's (1977) work lends credence to this hypothesis in some respects. Through a series of case studies which attempted to summarise detailed notes kept in diaries by two second language learners, the researchers identified what hindered or facilitated learning for them. They identified affective factors such as being comfortable in your own home (resting), anxiety related to moving, rejection of the teaching methodology being used, and amount of motivation for the materials being used. In terms of strategies or classroom events that influenced learning in their particular contexts, they identified listening to other learners interacting (eavesdropping)rather than speaking themselves as a facilitator of learning and having a personal agenda (ie choosing/knowing what you want to learn) as a further facilitator of learning.

Although, this current study does not make use of learner diaries it does ask informants to reflect on what caused them to notice and recall particular items of vocabulary. Therefore Schumann's research and the personal agenda hypothesis is directly relevant to this study.

Alongside learner agendas, learners also bring certain learner strategies with them to each lesson. In this respect all learners are different. Allwright looked at the collective learning experience and suggests in his 1984 paper (p14) that we can assume that all participants take into the classroom with them their individuality. How individual learners approach learning in a lesson has been explored in SLA in terms of learner strategies and neurological processes, the former generally being defined as conscious and the latter unconscious. The next section looks at these learner strategies.

2.4 The Learner as an Individual

2.4.1 Learner Strategies

Oxford and Crookall (1989) outline seven main kinds of learning strategy and these are listed below.

    1.   *Cognitive*

        Manipulation or transfer of information e.g. through reasoning, note-taking etc.

    2.   *Memory Strategies*

Techniques for storing and retrieving information (see keyword method later in the chapter).

3.	*Compensation Strategies*

	Used to compensate for missing information, e.g. guessing.

4.	*Communication Strategies*

	Ways of communicating through speaking, listening, reading and writing.

5.	*Metacognitive Strategies*

	Behaviours used for arranging, planning, evaluating own learning.

6.	*Affective Strategies*

	e.g. self-reinforcement positive self-talk.

7.	*Social Strategies*

	Involving other people, i.e. the language learning process.

Nyikos and Oxford (1993) investigated the types of foreign language learning strategy used by 1200 students at an American University only to find that formal strategies aimed at obtaining good grades were used a lot more than strategies geared towards developing skills for authentic and communicative language use. Many studies have been conducted to look at the learning strategies of children and adults, and in particular those of 'good' language learners (Naiman, Frolich, Stern and Todesco,1978; Lennon,1989; Stevick, 1989). They have mostly concluded that the learning strategies of these two groups may be different and that social and interactional strategies may be more important for younger learners. It should be added that the methods of

collecting data leading to these conclusions was quite different with adults being asked to self-report and children mostly being observed.

In terms of this present study, learner strategies and neurological processes will played a significant role. Learners when asked to comment on why they had recalled certain items of vocabulary related the use of certain learning strategies (such as communication strategies or social strategies for example) in their responses. According to Ellis (1994,p.549) 'successful learners are thoughtful and aware of themselves in relation to the learning process.' Decisions are conscious and they are aware of how to optimise their learning style. Furthermore, 'good' language learners have the ability to talk effectively about their language learning experiences, having developed a sophisticated metalanguage for doing so. Ellis concludes that 'the more successful adult learners are better able to talk about the strategies they use' (1994, p.556).

The use of learner strategies was revealed in the responses given by informants in the self reflect exercise used in the current study. It was necessary to check these strategies as far as was possible in the video of the lesson, to be sure that the learner was commenting on a strategy used for the particular vocabulary item recalled and not just outlining strategies used generally in any lesson. Neurological processes, being unconscious processes, were not within the scope of the learner or the study to comment upon. Similarly, another area of learner difference that was difficult to comment upon and yet impacted greatly upon the learning that took place in the classroom,

was that of the learner's affective state. These *'affective states'* are discussed in the following section.

2.4.2 Learners' Affective States

Learners faced with the daunting task of learning a new language react to this situation in a number of different ways, often dependant upon their reasons for deciding to learn the L2. Affective states are many and varied but a lot of work has been done on the following affective factors.

2.4.3 Learner Beliefs

Clearly in any learning situation the learner will bring certain attitudes and ideas with them to the classroom. These beliefs about learning and more importantly teaching are often at odds with what the learner finds in the classroom. Studies done in this area (Horwitz, 1987a) reveal that many students have quite a restricted view of effective language learning; seeing only memorisation of vocabulary and grammar rules as the key to better language learning. It is this belief system that the current research needs to be wary of. Informants when asked to relate reasons for recall of certain vocabulary items may believe so strongly in the effectiveness of certain teaching and learning techniques that they unwittingly give these techniques as their reason for recall even if in fact these techniques were not present in the lesson. A mismatch of expectations and experience in the new host country is only one of the factors that can lead to anxiety, the nature of which is outlined below.

2.4.4 Anxiety

Research has shown that learners experience 'language anxiety', a type of situation specific anxiety associated with attempts to learn a language. Bailey(1983) found this anxiety to be heightened when learners compared themselves with other learners in the class. Moreover, this anxiety seems to arise particularly when learners are asked to listen or speak in the L2 (Horwitz, Horwitz and Cope, 1986).

Research over the years has produced mixed results with regard to the relationship between anxiety and improved results in the L2 which brings us back to the idea put forward by Alpert and Haber (1960) that two kinds of anxiety can be distinguished: *facilitating anxiety* and *debilitating anxiety*

Many of the informants in the present study were under a lot of pressure to perform in their courses, often within a limited time frame. Anxiety was therefore a very real variable even before informants were placed in a test situation for the current study. The test scenario set up in the study put learners in a competitive situation. Consequently learners, aware that they were being videoed and tested, were particularly vulnerable to the effects of anxiety. These effects need to be allowed for when interpreting research results and student performance judged with this in mind. The possibility that informants will try to alleviate this anxiety by studying words in between tests or copying needs also to be considered.

2.4.5 Ego/Anomie

A number of studies (Berne, 1964, Acton, 1984) have also examined the negative effect of *ego* on learning a second language along with *anomie*, a feeling of alienation and suspension between two cultures (Durkheim, 1897).

Both of these variables are often present with newly arrived language learners who are surrounded by the language and culture of a second language. Egos become fragile as anomie sets in or alternatively egos are inflated in an attempt to attribute perceived lack of progress to some variable external to the learner. Such abstract concepts have to be taken into consideration when investigating what learners recall, retain or learn from any lesson especially when using the learners' comments to do so. Lack of confidence may hold learners back from disclosing all that they have noticed in the lesson. On the other hand, over-compensation by learners may mean that they offer words to the interviewer that were already known to them rather than admit that they can recall very little new from the lesson. The reduction of ego and the presence of anomie can lead to reduced motivation as outlined below.

2.4.6 Motivation

Lambert and Gardner first coined the terms *instrumental* and *integrative* (1972) to describe a second language learner's motivation. The former is a desire to gain social recognition or economic advantages through a knowledge of the target language. The latter is a desire to learn in order to integrate into the target language community. Both forms of motivation can be strong but Stevick

(1976, p10) points out that learners with instrumental motivation often see the learning of a second language as an assault on their person whereupon he/she will immediately defend himself/herself in a number of ways such as daydreaming. This type of learning is termed *defensive* learning by Stevick. Some of the informants in this study who recalled one or no words from the lesson they had just been in, appeared to be suffering from this lethargy mentioned by Stevick. This lack of motivation experienced by some informants meant that the results of their test could not be treated as representative of the group as a whole.

Receptive learning is more linked with *integrative* motivation where the student is prepared to invite the teacher in. This situation often leads to deeper processing of information (pp 111-112) and has been associated with effective learning. Informants who recalled large numbers of new vocabulary items were obviously highly motivated, not only by their course of study at the centre but by the challenge of the research tasks set for them.

Motivation has been linked with the development of learning strategies in the L2. These strategies have already been outlined earlier in the chapter but certain strategies have been used as a tool to aid the learning of vocabulary specifically and contribute to the development of learner vocabulary repertoires. Some of these vocabulary learning strategies are discussed below.

2.4.7 Age/Aptitude/Learning Styles

There is ongoing debate about the ideal age for learning languages. Some researchers claim that children learn more efficiently and others that adults learn better than younger learners. In the current study, informants were mostly in their late teens or early twenties (16 to 25 years was the biggest age group out of a group ranging from 16 to 40 years) but it is understood that they all possessed different language aptitudes and individual learning styles. Age and aptitude may affect the learners' ability to recall some of the new words they notice. Similarly, the individual's learning style (or characteristic way in which they orientate themselves to problem-solving and learning) may be reflected in the comments given to the interviewer when asked why they think they recalled the words that they did from the lesson. These affective factors should be kept in mind.

2.5 Relevance of the Literature to the Current Study

This study was based on Slimani's idea of *uptake* from lessons. It asked learners to say what they could recall from a lesson and why they thought they had recalled the words that they did. The only variation on Slimani's quest to discover what learners claimed to have ieamt was the decision to look at what learners claimed to have recalled rather than learnt. The study also varied from Slimani's in that it investigated retention of recalled words. The notion of the learner being a valuable and reliable source of information regarding this process was central to both studies.

The research of literature related to the search for a definition of what constitutes *learnt* made it very clear to the current researcher that there were many ways of defining this process. A *learnt word* could be defined in terms of degree of knowledge about that word, ability to manipulate that word or merely ability to recognise that word. Feeling that the notion of learning words was too large a concept to be investigated from single lessons, the current researcher decided that what was really being investigated in a study of this kind was *recall*.

Recall, like learning, could be investigated against a backdrop of hypotheses put forward to explain why learners notice, recall, retain and learn some words and not others. These hypotheses included *The Output Hypothesis, The Skill-Building Hypothesis* and *The Personal Agenda* Hypothesis.

Ideas about the necessity of *explicit* knowledge as well as *implicit* knowledge when learning a language also provided hypotheses that could be tested during the study. Before stating any findings on reasons for recall of new words, gleaned either from informants themselves or from observation of lessons, it was important to let the reader know previous proposals put forward to explain classroom learning and therefore examine and outline the hypotheses mentioned above in some detail.

Finally, just as no two lessons are ever the same, no two learners are ever the same. If we are to look at the recall of new vocabulary by learners, we must

identify and research the variables that are likely to impinge on each learner if for no other reason than to be aware of them. Furthermore, knowing the kinds of learning strategies identified in previous works as being used by individuals, raised the possibility of adding to this corpus of knowledge by recording the reflections of the learners from each lesson and looking at strategies they reported using.

2.6 Vocabulary Learning

2.6.1 Context

A general distinction can be made between strategies that deal with learning new words in isolation and those that deal with learning new words by looking at the specific context that they appear in. Stahl (1986) has put forward 3 principles for effective learning of vocabulary. The first is to give both definition and context. The idea of context is supported by many researchers (Hadaway, 1986; Moore, 1987; Sternberg, 1987). Nation (1982) previously called the context idea into question and pointed out it is really only the diversity of the contexts which acts as an aid to 'deep' learning.

Studies in the area of cognition and memory show that babies cannot recognise items when the surrounding context is changed (Rovee-Collier, Rutgers University). Similarly we often do not recognise people when they are out of their usual contexts. This highlights the fact that a diversity of contexts

aids the 'deep' learning of vocabulary items.

Part of this same debate is the research testing the effectiveness of guessing the meaning of vocabulary from context on retention of that same vocabulary. Some research concludes that guessing aids retention (Li, 1988). Others maintain that factors conducive to guessing are not conducive to aiding retention (Mondria and Wit-de-Boer, 1991: Williamson, 1989). Still others say neither are particularly effective taken singly (Jenkins and Dixon, 1983).

The context /isolation debate was explored by Cohen and Aphek (1981) who found that beginner learners found listing tasks best for retention of vocabulary and intermediate learners found contextualisation more effective which suggests that contextualisation works best when learners already have quite a good level of L2 knowledge.

2.6.2 Mnemonics

Stahl goes on to point out that words taught in isolation are in fact retained very well and often in large quantities. This is supported by the reported success of a method known as the 'keyword' method. This method requires a subject to associate a word in the first language with the new word being learnt in the second language. An example taken from Nation (1982, p26) is the Indonesian word 'pintu' which means door in English. A learner of Indonesian is asked to think of an English word (the key word) which sounds like 'pintu', i.e. pin and then imagine a pin and a door interacting as below.
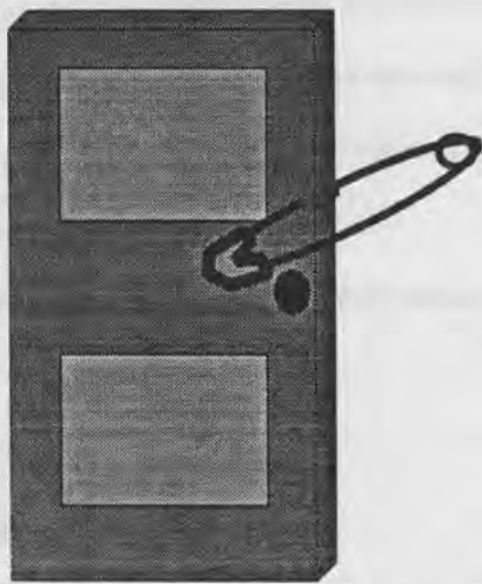
Figure 1 Example of Word Association

Mnemonics such as *memory hooks* (Nyikos, 1985) or *mnemonic graphic organisers* (Kaelin, 1991) work on a similar model and have also been researched closely.

2.6.3 Deep Processing

The second principle for effective vocabulary instruction, according to Stahl (1986, p664) is to encourage *deep processing*. He defines this as:

1. 'making more connections between new and known information (or relating the new word to more information than the student already knows).

2. 'spending more of one's mental effort on learning'.

He further identifies three levels of processing:

1. *association*

2. *comprehension*

3. *generation*

These principles form the basis of 'rich' instruction (McKeown, 1988; McKeown, Beck, Omanson and Pople, 1985) and are reflected in such approaches as *semantic feature analysis*, *semantic mapping* and *semantic field approach*.

Semantic feature analysis (SFA) is a process of establishing categories in the learners' minds and rules for placing these words into these categories. It is built upon schema theory (Anders and Bos, 1988). *Semantic mapping* likewise

requires learners to map relationships from an over-arching category. The *semantic field approach* takes a keyword for a subject such as 'crime' and five or more associated words such as 'murder, robber' etc. as its starting point in a similar way to the above. All methods claim success in aiding retention of vocabulary.

Most methods stress the importance of learner prior knowledge and learner interest (Thelen, 1986; Haggard, 1986; Stahl, 1986; Carr and Wixson, 1986). These criteria can often be met more economically by encouraging learner initiated vocabulary learning (Carr, 1985; Haggard, 1986) or independent learning (Nagy, Herman and Anderson, 1985). Learner strategies need to be as refined and developed as teaching strategies if not more so (Giacobbe and Cammarota, 1986; Porte, 1988; Cohen and Aphek, 1981).

Stahl's third principle (1986) is multiple exposures. Exposure in the form of a variety of tasks (Visser, 1990) helps learners to grapple with the new schema. Other considerations are the spacing, crowding, pacing and time allotted to slots (Stahl, 1986).

The three principles outlined above relate to 'rich instruction' and learning as well as retention. In terms of facilitating the latter and recall and noticeability of vocabulary items in any one lesson, this study should reveal if in fact any of these principles are necessary, and shed some light on the nature of vocabulary development.

2.6.4 Vocabulary Development

A lot of researchers have investigated the process of vocabulary development. Palmberg (1987) tried to trace the stages of development of vocabulary and research whether lexis is acquired gradually or put into active production just from having been heard. He also researched the optimum conditions that are necessary for the latter to occur by conducting a study quite similar to the present study in which he attempted to analyse qualitatively what vocabulary is learnt from lessons. In his 1987 study in which he used what he termed a *spew test* to test what was learnt from lessons, he concluded that it was textbook vocabulary, vocabulary practised in class 'under the control of the teacher and vocabulary affected by the rehearsal effect of the test itself. These claims are discussed later on in Chapter V of this study.

Quite aside from looking at what the learner does in order to facilitate learning either consciously or unconsciously, some researchers see the vocabulary learning process as a direct result of the characteristics of the word itself; in other words from a psycholinguistic perspective.

Researchers such as Higa (1965), Rodgers (1969) and Ludwig (1984) have pursued this line of study. Higa showed that vocabulary may be difficult due to its pronounceability, its form or part of speech, its similarity to known words, how it was being tested and the learners level of language proficiency.

Ludwig's work mirrored Higa, but she also looked at the effect of *concrete* meaning or *abstract* meaning and word value (i.e. positive, negative or neutral).

She concluded that new words which resemble phonologically words in the learners L1 will be easier to learn. Granger (1993) also found this. Beaton and Ellis (1993) stated the same but added that similar orthography of words in L1 and L2 would facilitate learning of those words. Higa found that nouns are easier to remember than verbs or adjectives. Words with concrete referents are easier to remember than abstract words and positive words are easier to remember than negative words.

Research has also been done on *working memory* by Baddeley (1974). He concluded that short-term memory was more reliant on sound and long-term memory more reliant on meaning. Similarly, short-term memory would allow verbatim recall whereas long-term memory recalled the gist of several chunks of information.

The number of vocabulary terms that could be retrieved from short-term memory depended upon the length of those vocabulary items. For example, as Chinese numbers are very short and mostly one syllable, a great deal more can be recited than in other languages. Although, it is said that we can retrieve up to 7 items on average, the length of time it takes to say those items is an important consideration. These findings led Baddeley to coin the phrase *the phonological loop*. He added that words of similar sound were less likely to be remembered than words of purely similar meaning. His studies looked at L1 retention.

Finneman (1990) undertook two case studies which suggested that certain learners may be characterised as either form or meaning based. In other words some react to what a word looks or sounds like and others react to the meaning of words. Clearly, such findings are important when analysing data collected for this study and learners may prove themselves to be form or meaning based when giving their reasons for recall. They may also prove themselves to be a mixture of both with each situation presenting itself differently to the learner.

A further consideration when looking at the meanings provided by the informants for the words recalled, is that meaning is not static. 'Language is a matter of meaning potential' says Lewis (1993, p.62). This means that new uses are always possible and on particular occasions, use may deviate from the norm. Native speakers are allowed the luxury of creative language use and therefore non-native speakers should also be given some scope for creativity. With this in mind, learners were allowed some creativity when reporting the words they had recalled from the lesson.

Vocabulary learning has developed into an area of linguistic research by itself especially since vocabulary teaching was reinstated after its reduced status during the audiolingual period. It is partly due to this 'revival' that the current researcher decided to conduct this research and partly due to reasons outlined under the section called Theoretical Framework.

2.7 Relevance of the Literature to the Current Study

Context

Literature which looked at the usefulness of context to vocabulary learning was important to the study because most of the vocabulary items that learners were exposed to during their lessons were surrounded by context. It was important to know the arguments for teaching words in isolation or in context put forward by previous researchers in order to be aware of any effects this might have on this study.

Furthermore, it was hypothesised by the current researcher that learners might comment upon the role of context in aiding recall when asked to give reasons why they had recalled certain new words and not others. The researcher was particularly interested to see if guessing the meanings of words from their contexts had any effect on the recall of those words.

Mnemonics

Comments made by learners about their reasons for recall of new words revealed that learners naturally made associations with words in order to learn them or that they developed their own strategies along the same lines for dealing with new vocabulary. The section on mnemonics was included, therefore, to highlight the techniques taught to learners in order for them to recall and retain more vocabulary and to compare these techniques with

strategies that learners reported using in the lessons.

Deep Processing

Knowing the basic principles previously established by researchers for effective processing of new words, allowed the researcher to investigate and comment upon some of these principles after looking at the data obtained. Principles, such as the need for multiple exposures of words in order for deep processing *of* that word to take place, were put to the test when the researcher analysed the transcripts resulting from the video cassette recordings of the lessons and documented trends surrounding the recall of new words.

Vocabulary Development

Studies which asked the same or similar questions to those upon which the current study is based, had obvious importance to this study and therefore needed to be included in the review. Palmberg's findings (1987), although procured through a different research design, gave the researcher a base to work from and results to either consolidate or refute.

Psycholinguistic findings and studies investigating the role of human memory in vocabulary development also provided the current researcher with a framework of hypotheses and statements about word characteristics that seemed to make particular words more salient and recallable. These findings could easily be investigated in this current study once a list of the new words recalled by learners had been drawn up. Although not obtained through an

experimental setting, proof of the kinds of words recalled from lessons could be documented and added to what has already been reported by people such as Higa (1965), Ludwig (1984), Beaton and Ellis (1993) and Baddeley (1974).

Reviewing research that had already considered similar questions to the current researcher or studies which had looked at only one small area of what this current study covered, helped the current researcher to put questions that had arisen in her mind into context. Studies that seemed to have only a very oblique link with this current study needed to be investigated and reported upon as the current study was designed to be so open ended, with such a wide catchnet in terms of responses from informants, that there was no way of knowing what results might emerge. Thus such an eclectic literature review not only served to avoid overlap with previous research and build confidence in the current researcher that other researchers had asked similar questions but provided a wide and solid base to the varied data that was collected.

2.8 Theoretical Framework

Having taught English as a Foreign Language for several years with what can only be referred to as a belief not only in the absolute unquestionability of input leading to intake but using certain methods in the premise that input would invariably lead to output, the debate over the role of input, interaction , uptake

and output seemed a pertinent one. Thus the current study was designed to be as open-ended as possible, with the researcher embarking on the study with certain preconceived ideas about input and uptake but not restricting the data collection by imposing these hypotheses on the methodological framework.

In terms of theoretical perspective, the Social Interactionist idea of learning seemed too exclusionist and too general a hypothesis when looking at learners at different stages of their linguistic development ,different backgrounds and motivations and different learning styles. This was not to say that a belief in the value of negotiation through interaction was not embraced. However, the current study takes the line that each language learning theory can have validity within certain areas of second language learning. In the area of pronunciation, it has been shown that the Behaviourist language learning theory may be a valid explanation for learning. In the area of grammar, Interactionist (including Cognitive Interactionist) and Mentalist language learning theories have been shown in some cases to be valid explanations for learning.

All of these theories form the theoretical framework for this study and a backdrop to the studies conducted on uptake from lessons. This study replicated and built upon a study carried out by Slimani (1989) and another carried out since then by Ellis (1995). It took the perspective that, just as different aspects of language may be learnt in different ways, different teaching approaches working together aid recall and learning of new vocabulary. In other

words, no single teaching method is superior to any other. Each lesson is a different event with a different classroom culture and any number of reasons can cause certain vocabulary items to be noticed and hence recalled by learners. Moreover, input does not predict intake or uptake necessarily. Lewis (1993, p.30) sums up this idea when he tells the story of a colleague of his who, when asked what she had done in a lesson replied' I did the present perfect but I am not quite sure what they did.' Such a response indicates a teacher who is aware of the fact that teacher input and student intake often do not coincide. If the two do coincide the teacher's objectives will be achieved. If they do not the student may still benefit or benefit even more but the nature of this benefit probably will not be apparent to the teacher or possibly even the learner.

The emphasis of this study was on the learners' noticing, recall and retention of vocabulary in particular. It was felt that previous research in SLA had tended to concentrate on how learners acquire grammatical sub-systems while paying some attention to pronunciation acquisition and that, like pronunciation acquisition, different processes may be involved. As Ellis (1985,p.5) puts it, we know 'almost nothing about the acquisition of lexis'.

Recent publications such as Lewis's *The Lexical Approach* (1993) have readvocated the role of vocabulary learning and teaching in the classroom. Lewis takes his inspiration from Krashen who espoused the importance of vocabulary learning (at all levels) over structural accuracy, the centrality of

meaning and receptive skills such as listening and the importance of *roughly tuned input* or input that is below, at and just above the L2 level of the student.

Lewis also argues the importance of *fluency* over *accuracy*, another Krashen tenet. The present researcher concurs with the idea that vocabulary learning should have primacy over the learning of grammatical sub-systems especially in the lower level English proficiency classes; the reason being that vocabulary is empowering for learners and equips them with a means of receiving and being involved in communication from the outset. Vocabulary should be taught according to usefulness or common usage rather than according to any notion that beginner level students can only acquire simple, short words with limited application or no application at all just because they are beginners. The *Communicative Approach* stressed the importance of authentic input. Lewis goes on to stress that classrooms should be 'input rich' (p.27) and that there should be large quantities of input that can be consumed quickly, with partial rather than total comprehension.

Finally, the present researcher does not completely align with Krashen and his ideas about incidental learning when it comes to vocabulary learning. Like many of the researchers (Schmidt, Long, etc) the present researcher felt, before conducting this study, that vocabulary learning required learners to pay attention to the vocabulary item or notice or react to it in some way (even if it be with frustration) if that vocabulary item was to be uptaken. Such notions, arising out of the theoretical framework outlined above, were put to the test

during this research and hopefully much more food for thought provided.

2.9 Overview of the Chapter

Input

Input and its value / role in second language acquisition is still being debated. Views range from:

1. Seeing input as output (the Behaviourist view)

2. Seeing input as important in operating as a 'trigger' to internal language processing (the Mentalist view)

3. Seeing input as important but only in as far as it works within the constraints of the internal mechanisms imposed by the learner (the Cognitive Interactionist view)

4. Seeing input as secondary to verbal interaction in its importance for language learning (the Social Interactionist view)

Hypotheses Related to the Input Debate

1. *The Frequency Hypothesis* which states that the order of second language acquisition is determined by the frequency with which different linguistic items occur in the input.

2. *The Natural Process Hypothesis* which states that learners have natural abilities to learn languages and it is only when these natural abilities are ready that learning will take place. Learners

should therefore be left to just 'encounter' the new language in their own way.

3.   *The Input Hypothesis* which states that language acquisition takes place when learners encounter language items in situations that make those items *comprehensible* to them. In its purest form this hypothesis gives no credit to explicit teaching whatsoever. Many researchers have disputed this hypothesis claiming that it is the *incomprehensibility* of input that draws the learners attention to the language item, encouraging the learner to ask questions about the item and eventually add it to their repertoire.

Interaction

Interaction in the classroom and its role in second language learning is at the centre of a lot of debate. *The Interaction Hypothesis* states that it is interaction that creates the opportunities to learn or in its strongest form that interaction is learning. The idea that learners must interact with other learners or native speakers before they can learn a language has been disputed by some researchers. Others maintain that learners need only be privy to the interaction of classmates in order to learn a language or that interaction as a way of *negotiating input* is paramount to learning.

The effects of error correction during interaction and subsequent learning as a result of the error correction have been investigated by many researchers. Some studies have found error correction to be an aid to the learning process

whilst others have found that the success of error correction as a facilitator to learning depended upon other variables such as motivation, anxiety and method of correction.

Uptake

Uptake was a term used by Slimani (1989) to mean what learners claim to have learnt from a lesson. The word learnt is problematic as it is never clear what is expected from a learner who has learnt vocabulary. Learning can be evaluated through performance.

Performance can be divided into two categories: *productive* (models are drawn from deep within the learner) and *reflective* (the learner merely gives the teacher what has been given to the learner without any processing, e.g. 'parroting')

Another way to look at vocabulary 'learning' is to see vocabulary knowledge as:

1. *declarative* (the learner will know the meaning of a word instantly) or *procedural* (the learner will gain this knowledge by performing a skill).

2. *unknown* (not met before), *acquainted* (recognised with some deliberation) and *established* (the meaning is easily, rapidly and automatically recognised).

3. *receptive (passive)* (the meaning is known) and *productive (active)* (the word is known well enough to use it).

4.   *potential* (the word has only been partially assimilated into the linguistic repertoire of the learner).

Hypotheses Related to the Language Learning Debate

1.   *The Output Hypothesis* which states that we learn language by producing it.

2.   *The Skill-Building Hypothesis* which states that we learn a language by remembering rules which become automatic, doing drills and exercises.

3.   *The Personal Agenda Hypothesis* claims that a learner comes with an agenda for learning and that this cannot be over-ridden by the teacher's agenda.

Explicit Knowledge Versus Implicit Knowledge

A lot of research has been done to determine whether or not language needs to be *noticed* and therefore made *explicit* before it can be uptaken or learnt or whether language can be learnt through *implicit* knowledge of the intuitive kind with learners unconscious of what they know.

The Learner as an Individual

Researchers now realise that the student's learning style, how they are feeling and the strategies they have developed for helping them to learn a language

are very important in determining success in second language learning. Things like *motivation, ego, anomie* and *anxiety* can come together with *age, aptitude, learner styles* and *learner strategies* to either hinder or help the process of learning.

Vocabulary Learning

Context

A lot of studies have been done by researchers keen to prove the benefits to the learner of learning new vocabulary either in context or in isolation. The debate about which approach aids learners the most in their task of learning new vocabulary is ongoing.

A similar debate exists about the value of encouraging learners to try to guess the meaning of a new word by looking at its surrounding context. Some researchers claim that this process aids retention of that word. Others claim that contextualisation is more of an aid to intermediate learners whereas listing in isolation benefits beginner level learners.

Mnemonics

It seems that words taught in isolation can be retained very well and in large quantities. Many vocabulary learning methods make us of *mnemonics* to develop large vocabularies quickly. The *keyword method* is an example of this approach. The learner is taught how to aid recall of new words by developing the ability to make associations between the new word and an image that

springs to mind when they first see that word.

Deep Processing

Stahl (1986) maintains that vocabulary needs to undergo a process of *deep processing* before it can be learnt. This means making connections between the new word and known information and expending considerable mental effort during the process *(Semantic Feature Analysis* and *Semantic Mapping* are approaches to vocabulary learning based on this idea). He goes on to identify three levels of processing *association, comprehension* and *generation.*

Stahl also identifies the need for the learner to have multiple exposures to the new word and points out that the spacing (or crowding) of new vocabulary in the lesson, the pacing of the lesson and the amount of time allotted to vocabulary learning are key considerations when looking at the effectiveness of vocabulary intake.

Vocabulary Development

Can lexis be learnt just from being heard or experienced or is it acquired gradually over several encounters? Palmberg (1987) has tried to investigate this question and concludes that it is learnt gradually. He also asked' What vocabulary is learnt from lessons?' and found that learners learnt textbook vocabulary, vocabulary practised in class and vocabulary affected by the rehearsal effect of the test itself.

From a psycholinguistic perspective, research has found that new words resembling words in the learner's L1 phonologically and orthographically are easier to learn, nouns are easier to remember than verbs or adjectives, words with concrete referents are easier to remember than words with abstract referents and words with positive connotations are easier to remember than words with negative connotations.

Some research on working memory in L1 showed that long term memory is more reliant on meaning and the gist of chunks of information whereas short term memory is more reliant on sound and verbatim recall. Other research stated that some learners were form based and others meaning based. The length of words also affected the number of words that a learner could retrieve. The shorter the word the greater the number of words recalled *(The Phonological Loop,* Baddeley, 1977). Finally, it must be kept in mind that' Language is a matter of meaning potential' (Lewis, 1993, p62) and that the meaning of words is not static. New and creative uses of words surround us in the language of native speakers.

Theoretical Framework

This research was based upon the following theoretical principles:

1.   As far as possible the researcher should embark upon a study of this nature with an open mind rather than a set of closely defined hypotheses and be prepared to listen to the learners.

2.   Language learning is multi-faceted with vocabulary perhaps being learnt in a different way to pronunciation etc. There is room, therefore, for all

the theories put forward about language learning to be valid in different situations, with different learners and with different aspects of language.

3.   Input does not necessarily become intake or uptake but vocabulary learning is a primarily conscious process and the majority of new words need to be focussed upon or paid attention to, in order for them to be noticed and recalled.

In this chapter the researcher reported previous findings from similar studies to the current one. Other literature reviewed made explicit the wealth of studies exploring questions which, although appearing tangental to this current study at first, provided the researcher with a breadth of findings on which to base hypotheses to be investigated in the current study. The relevance of the findings from previous studies to this current study, it is hoped, was made clear.

The next chapter looks at the background to the method of data collection used in the current study; focusing upon how the study came to be designed as it was and why certain tests were used rather than others. The design of the current study is then discussed in detail and a clear picture of the sample of informants involved in the study provided. The chapter finishes off by elaborating upon the limitations the researcher came across while conducting the research. These are expressed in terms of the sample of informants, the data collection and test instruments, and constraints on the analysis of the data.

Chapter 3 - *Method*

This chapter looks firstly at the rationale behind the research design of the current study and then takes the reader through the literature that influenced the researcher's decision to design the study in its present form. Following this, the reasons behind the choice of certain test instruments and methods are outlined and the various sources of evidence used in the data collection stage are documented and examined.

Finally, the constraints imposed upon the study by limitations of the questionnaires, interviews, test instruments and procedure, are outlined for the reader. Further limitations imposed by the nature of the sample of informants are also explained, as are limitations experienced in the analysis of the data in the final section.

3.1 Methodological Rationale

Because this study involved looking very closely at events that took place in a classroom setting and the behaviour of learners in the lesson, it was obvious that the research would need to be carried out in line with the fundamental constraints of what Gaies (1983) has called *Classroom Process Research* and ideas provided by Allwright on classroom research. The basic principles for such research, as proposed by Gaies, are as follows:

1   *Classroom Process Research* rejects as simplistic any univariate classification of second language instructional experience.

By this Gaies means that it is too simplistic to look at classroom learning in terms of there being only one effective method of teaching and method being all important. Indeed, when discussing the results of this study, it may or may not be possible to show a relationship between certain teaching methods and patterns of vocabulary recall and retention, but the study is not primarily a study of the specific pedagogical treatment.

2   The emphasis of the study is on describing fully the second language instructional environment.

In other words, to conduct research on such a vast network of inter-related variables as are presented in each lesson or classroom situation, taking social, individual and pedagogic factors into consideration, means that the study will necessarily be descriptive in nature with hypotheses arising from the data rather than being tested by it.

Because classroom research requires very close investigation , it is unable to cope with large amounts of data. What is more, such a level of cooperation is needed from all participants that the pedagogic situation may be affected, turning the study into a form of action

research.

Information derived from the study will be much less a matter of compelling statistical evidence or experimental result, and much more a matter of a perception that useful dynamic insights are being made. In this sense, as Allwright states (1989,p23), 'we have to accept that our findings are never going to be definitive'.

3   Direct observation is given priority over other research approaches.

This principle forms the basis for part of the current study, but is by no means applied in its entirety. Allwright (1989) suggests what he thinks are further principles for classroom based research and this study aligns itself with these principles. They are as follows:

a   The considerations and interpretations of participants are equally as valid as direct observation. The participant should be valued and trusted to be capable of introspecting accurately and closely on classroom events and their own learning strategies or classroom behaviour. He goes on to espouse;

'We cannot hope to reach an adequate level of understanding by external means alone. Further research should attempt to properly incorporate participants'

considered interpretations' (pp10 and 20).

b   In order to research complex inter-related topics we need to use 'appropriately complex diversified approaches to the selection of research methods' (p22).

This study tries to honour all of these principles and take them as a basic general methodological framework.

3.1.1 Background to the Research Design

Approaches to research traditionally lie between the quantitative and qualitative ends of the continuum. Many educational research studies have been conducted which take a quantitative approach, using quasi-experimental research design and looking cross-sectionally at the data. A number of researchers now prefer to ask more open-minded questions requiring a qualitative more descriptive approach. Even more researchers (as with this study) can see the benefits and necessity of combining the two approaches.

A review of classroom based research reveals a large number of studies conducted using interaction analysis in the tradition of a qualitative, descriptive approach. All the studies use observation as a tool and rely upon empirical data collection techniques, investigating primarily from 'the outside,' as Allwright puts it (1989, p20).

Slimani (1987), in a similar study to the current one, based her research mostly on the observable after attempting to collect the reflections of participants in the study without much success. However, the original design of her study formed the basis for the current study with learners being observed in a lesson (and classroom interaction recorded) and asked to report their reflections on the lesson in detail afterwards. Another study which used a similar method to the present study was that of Cherchalli (1988) in Algeria. She used the learners' own interpretations, in the form of diaries to help with accounts of social and socio-psychological aspects of the language classroom situation and the lessons experienced. Through a series of interviews and diary entries an in depth picture was formed of the impressions, problems and experiences learners had throughout the lessons. While not being very successful in her attempts to glean data related to individual cognitive processes (she did not find this approach very productive in an Algerian secondary school context), she did manage to collect useful data about classroom life generally.

This present study then, used a combined approach. Both classroom observation and learners' interpretations were used to give two perspectives to the study and as Allwright suggests, a multi-source approach. The only variation on Cherchalli's study was the immediacy of the classroom reflection. All participants were asked to reflect and record their experiences immediately after each lesson. This was necessary if I was to collect data on cognitive processes (as Cherchalli had been unable to do) while the events of each lesson were still very vivid in the minds of the learners.

3.1.2 Background to the Test Instrument Design

When assessing learning, acquisition, recall or long term retention of vocabulary, the instrument used is of the utmost importance. The bottom line is that it must have construct validity. The researcher must decide whether to test words discretely (in isolation or list mode) using tests similar to those designed by Diack (1975), or whether to test integratively (in context or integrated into situations). Literal recall tests, multiple choice and matching definitions to words, fall into the former category.

Another instrument used is the 'Yes/No Check List a test that was first used as long ago as 1890 according to Melka Teichroew (1982, p7). It has been validated by Sims (1929) and Tilley (1936) with native speaking school children and more recently researchers such as Campion and Elley (1971), Meara and Jones (1987), Nagy, Herman and Anderson (1985) and Anderson and Freebody (1981) have adapted and innovated this test and used it with senior high school students and second language learners as a vocabulary test.

The test presents informants with a list of words and simply asks them to tick the words they know and cross the ones they do not know. Anderson and Freebody (1983) developed an interesting variation on this idea. They prepared a check-list containing a high proportion of nonsense words which were created by changing letters in real words or by forming novel base and affix combinations. The ticking of these nonsense words was taken as evidence of a tendency to overrate knowledge of real words.

Standardised tests such as the *ITBS Reading and Vocabulary Knowledge tests* (Beck, Perfetti and McKeown, 1982) or the *Cambridge First Certificate examination* paper one are also validated vocabulary tests. They are used as post-tests of specific tasks designed to mirror deeper processing such as semantic decision, sentence verification, story recall and context interpretation (Beck et al, 1982; McKeown, Beck, Omanson and Pople, 1985). Semantic decision requires subjects to decide if words presented to them correspond to the definitions given by an examiner.

Another test based on this idea is the *Vocabulary Level Test* devised by Paul Nation and validated against the *Yes/No Checklist* by Read (1988). He designed the instrument to assess knowledge of both general and academic vocabulary. Although successful, the test has three drawbacks:

1   It can only test small samples of words.

2   It is reliant upon dictionary type definitions which are sometimes awkwardly expressed.

3   The influence of the test format on the testee performance.

Sentence verification asks subjects to recall stories based on target words while context interpretation asks subjects to understand the meaning of a word within a specific context.

Whichever test design is used, Nation (1982) recommends the following be taken into consideration:

1   Subjects' previous knowledge; familiarity and pronounceability of the new vocabulary; the part of speech, imagineability.

2   Subjects' ability and willingness to take part using the experimental procedure

3   The compatibility of the learning procedure to the testing procedure.

4   Long term retention.

5   Individual performance can be hidden behind averages.

To this I would only add:

a   Difficuity of the vocabulary (concrete or abstract).

b   The ease with which the test can be administered with minimum disruption to participants.

After a lot of consideration of these factors, the researcher decided to use *The Vocabulary Level Test* and the Anderson and Freebody (1983) version of the *Yes /No Test* to test retention of the vocabulary recalled by the learners in the study.

The Yes/No Test had in its favour that it was very easy to devise (and likewise easy for learners to follow) and it required learners simply to say whether they

recognised certain words amongst distractor words and then explain them in their own way. The open-endedness of the test design allowed learners to have a certain amount of creativity in their explanations and did not ask them to read and understand definitions provided from a dictionary. Thus a truer picture of their understanding could be gained. *The Yes/No Test* was also quick to administer and it was possible to adapt it so that learners could be interviewed and asked to explain the retained vocabulary whilst being audio-taped. The processes that learners went through in order to explain the words during the interview could then be kept on record for further analysis.

The *Vocabulary Level Test* was chosen as Test Two. Somewhat more restrictive for informants, in that it forced them to match words to definitions provided by the researcher, it nevertheless proved to be a fairly quick and easy to administer test. Learners were not free to articulate their own definitions of the words they had retained but all of the definitions given to individual informants were the definitions provided by the same informant during the *Yes /No Test* (Test One). As a result, they were not dealing with unknown vocabulary.

As double the number of words as definitions were offered to students, it forced them to discriminate between words unknown to them and those words they remembered noticing in the lesson.

Whilst no test is as suitable an instrument to test retention as the process of

long term, anonymous observation, the current researcher was satisfied that these two tests, especially with the adaptations made to them by the researcher, provided data on learner retention of new vocabulary. More detailed explanation of the test instruments is provided in the section Sources of Evidence.

3.2 Research Design

3.2.1 Objectives and Micro -Aims

At this point it might be useful to recap on what this research was hoping to reveal by looking back at the research questions once more. The first question was:

What vocabulary do adult EL learners recall and retain from any one lesson?

The study hoped to investigate the type and amount of words noticed and recalled after a lesson by learners. This was to be achieved by simply asking learners what they could remember and then taking note of long term retention of these words.

Secondly, the study set out to ascertain:

Why do adult EL learners recall the vocabulary that they do from

lessons?

With this question it was hoped that learners would be able to employ metacognitive skills to reflect upon what exactly it was that had caused them to notice and recall particular items of vocabulary as opposed to others during the lesson. Added to the reflections of the informants would be the observer's investigation of the classroom interaction, the materials used in the lesson and the psycholinguistic properties of the recalled words themselves.

With these overall objectives in mind, the specific micro-aims of the research were as follows:

1   To compile a list of vocabulary claimed by informants to be new, in order to analyse what vocabulary was recalled from any one lesson.

2   To procure the considered reflections of informants as to why these new vocabulary items were made noticeable for them in the first place and memorable in the second place, in this particular instance.

3   To look at long term retention of the vocabulary recalled immediately after the lesson.

4   To locate the new vocabulary recalled by informants within the classroom interaction in order to confirm their reflections.

5   To analyse the interaction of the lesson in order to draw possible links between certain features of the classroom interaction and

the noticeability, recall and retention of new vocabulary.

In order to achieve these aims the researcher carried out the following procedures:

1.   The researcher asked a sample of learners from five different lessons to complete an exercise in which they wrote down all the new words that they could recall from the lesson and why they thought they had recalled those particular words.

2.   The same learners were then interviewed one to one and asked to provide firstly, the meaning of the recalled words they had written down and secondly, reasons why they thought they had noticed and recalled certain words and not others from the lesson. These interviews were audio-taped.

3.   Group 1 of the learners was interviewed and tested two weeks later with Test 1 to document which of the vocabulary items recalled after the lesson could still be remembered. A further Test 2 administered after six weeks tested retention in Group 1 again. Group 2 of the learners only received Test 1 after six weeks.

4.   The lessons of the informants were video-taped by the researcher and transcripts made in order to confirm reasons given for recall of the new vocabulary related to the classroom interaction.

5.   The same transcripts were then subjected to a detailed analysis by the researcher in order to establish any possible links between

events in the discourse of the lessons and the recall of certain vocabulary items.

The precise methods used to collect the data are outlined under Sources of Evidence in the next section.

3.2.2 Sources of Evidence

Questionnaires

Objective: To get a written record of the vocabulary items recalled by learners immediately after each lesson and allow them time to introspect and reflect by themselves.

As a first stage in collecting the reflections of learners about their vocabulary learning experience, informants were required to complete a questionnaire immediately after each lesson. An example of a completed questionnaire is shown below.

QUESTIONNAIRE   please

1.Try to write down all the new words you can remember from the lesson you have just had. New words=words you have not learnt before.

axe
extinct
Board
Pip
Garashs

2.Now try to think back through the lesson. Why do you think you remembered these words? What happened to make you remember them? Please take some time over this and think back to each word you listed above.

Garashs : I know this bird but I didn't know the name of it so I could remember.
pip : easy to remember because only three spel
axe, extinct and board : I read the story of today's lesson three times so I could do it.

Figure 2: Completed Questionnaire

The questionnaire asked them to record all the vocabulary from the lesson that was new to them. In the second part of the questionnaire, informants were asked to think back through the lesson and say why they thought they had noticed and hence recalled the particular vocabulary items that they had. Every student in the class completed a questionnaire.

The wording of the instructions was kept particularly simple to avoid misunderstanding or non -understanding. The operational definition of *new words* was given as *words you have not learnt before*. This definition was reiterated in the interview that followed and informant understanding of the

definition checked verbally.

Interviews

Objectives: a   To procure a more detailed picture of the reasons

given by learners for recall of new vocabulary items

by asking informants to elaborate on what was said

in their questionnaire.

b   To answer any questions that informants had about

the research and make sure that they fully

understood the study they had agreed to be

involved in.

Out of the 45 learners that were asked to complete a questionnaire only the 24

that were videoed during their lessons were interviewed. All learners in all the

lessons were asked to complete a questionnaire largely in the interests of

equity but also because their written reflections could at least help answer the

first part of the research question; namely *What vocabulary was recalled by*

learners from each lesson?

However, only those learners that were focused upon during the videoed

observation of the lesson were used as informants to help answer the question

Why do learners recall the vocabulary that they do from a lesson? During the

interview, they were invited to speak about their responses to the

questionnaire while being tape-recorded and asked to articulate each

vocabulary item that they had recorded on their questionnaire and give a meaning for it in their own words. Then they were asked to think back to the moment that the vocabulary item appeared in the lesson and say why they thought they had noticed and recalled the word. Details of their responses are outlined in Appendix 2 .

Test Instruments

Retention Test 1

Objective: To see how many of the vocabulary items originally recalled by informants would be retained after a period of two weeks and if any not recalled originally would be recalled.

Informants were tested using the *Word Check-List (Yes/No Test)*. They were given a list of vocabulary items which consisted of distractor words or words not recalled in the original interview, some nonsense words and those words recalled not only by the student but by 25% of the informants in the sample. They were then asked to tick the items that they knew and cross the items that they did not know. The nonsense words were inserted into each list approximately three or four real words apart. In lists of four words, one was a nonsense word, two were real words not recalled by the student in the previous interview / questionnaire and one was the word recalled in the original interview. In a list of sixteen words, four were nonsense words, eight were real words not recalled by the student from the lesson and four were words recalled

by the student in the original interview. So nonsense words and real words not recalled by the informant during the original interview and questionnaire constituted roughly 75% of each vocabulary list. Informants were also required to provide verbal meanings for the words ticked during interview. A completed test is provided below.

VOCABULARY RESEARCH PROJECT
RETENTION TEST 1

Name:

Please tick (✓) the words you know and cross (x) the words you do not know.

1. antipupitate ✗
2. ambiguous ✓
3. menial ✗
4. mantel ✗
5. axe ✓
6. presoct ✗
7. vigilante ✗
8. extinct ✓
9. embark ✗
10. neglitice ✗
11. crouch ✗
12. board ??
13. meagre ✗
14. disintegrate ✗
15. edifite ✗
16. dweller ✗

Figure 3 Retention Test 1

Retention Test 2

Objectives: a   To test long term retention of vocabulary items recalled by informants from a lesson six weeks earlier.

b   To see if any vocabulary items not recalled after the original lesson were retained.

This test was modelled on the *Vocabulary Level Test* designed by Paul Nation (1983). Vocabulary items were matched to the original definitions provided by the informants. There were twice as many words as definitions given in order to provide distractors. In other words, all of the definitions provided were true and stated in the words expressed by learners but only half of the vocabulary items in the list were those recalled by informants originally. Distractor words were sprinkled throughout the list randomly and chosen randomly also. An example of a completed test is provided below.

RETENTION TEST 2

Name:

Date: 29th Sep 93

Try to match the words below on the left with their meanings on the right. You will not be able to match all of them.

1. hammer
2. platonic
3. axe
4. gap
5. pip
6. board
7. garish
8. extinct
9. concoction
10. galahs

a. government or department groups
b. describes animals or birds that have disappeared from the world
c. An Australian bird – pink and grey
d. the seed of a fruit like an orange
e. a tool for cutting wood

Figure 4 Retention Test 2

Observations

Objective: To record the events of each lesson in detail so that close analysis of the occurrence of vocabulary items in the discourse would be possible after the lessons were finished.

In order to be able to analyse the classroom interaction after the event, four classes were observed and videoed for one hour each which meant that a total of 45 students were observed. However, of these students only 10 in one class, 5 in each of the other two classes and 4 in the last class were focussed upon in the video. This decision was made after the pilot study in which it proved impossible to capture all the interaction of the entire class at any one time. So, in an effort to overcon.ə this limitation, small groups were chosen to be focussed upon and a microphone provided for that group. Thus these groups were used as samples of the class. At any one time both the teacher and the sample group appeared in the video. The interaction that took place can be seen in the transcripts provided in Appendix 3 and the patterns depicted in Appendix 4.

Classroom Materials

       Objective: To cite all materials used in each lesson and track vocabulary items recalled by the learners through the lesson.

In order to track vocabulary items claimed to be new by informants and recalled by them after the lesson, lesson plans, texts and any materials used by the teacher and students were collected and analysed. By doing this is was possible to see if any of the words recalled by the learners had been present or mentioned in the materials provided. The materials used in the lessons are shown in Appendix 5.

The Teacher

Objectives: a   To establish whether or not learners had been exposed to the same vocabulary items with the same teacher in previous lessons.

            b   To check whether lessons were to be regarded as 'vocabulary lessons' or 'general English' lessons.

The teacher of each class was informally interviewed after each lesson to check the aims of the lesson and different activities but this was not given a lot of emphasis as it was felt that, as Slimani (1991) suggests, it was more important to look at the actual shape of a lesson than what was planned for it. Teachers were also asked whether any of the vocabulary items introduced in the lesson being researched had been introduced during previous lessons with the same students. Again this was not given a lot of attention, though, as it would be impossible to trace the occurrence of all the vocabulary items present in each lesson back over several months. The aim was more to check whether the exact same lesson with the exact same students had been taught before. Of course none of them had been. Any revision work planned for vocabulary introduced in that lesson was also noted but again the distinction between planned or intended and what actually eventuates was recognised.

These were all the sources of evidence used to gain insight into what vocabulary was being noticed and recalled by learners in lessons and why they were recalling particular words and not others. A summary of the procedure, in terms of the sequence of events involved in the collection of the data, is provided below.

3.2.3 The Data Collection Procedure

Stage 1 (Pilot Study)
A class of low level proficiency students of English as a Foreign Language
were given the written questionnaire devoted to testing vocabulary recall
after being observed and videoed in a lesson.

Stage 2
45 informants from four different classes were observed during a one hour
lesson. Of these, 24 were focused upon with a video camera. Transcripts
were written up for the ,essons.

Stage 3
45 informants were asked to complete a questionnaire in which they
recorded all the new vocabulary items that they could recall from the lesson.
They then went on to elaborate upon 'why' they thought they had recalled
those particular words. This was done immediately after each lesson.

Stage 4
The 24 informants who were videoed were interviewed and probed about
their responses on the questionnaire. Interviews were audio-taped. They
were split into two groups in order to highlight any possible test effect: Group
1 consisting of nineteen informants and Group 2 consisting of five
informants.

Stage 5
After two weeks, Group 1 was given Retention Test 1. Written responses
were backed up by one to one interviews in which informants were asked to
articulate the words they had retained and provide a meaning for them.
Interviews were audio-taped.

Stage 6
After six weeks, Group 1 was given Retention Test 2. Group 2 was given
Retention Test 1 and back up interviews to test articulation of retained
vocabulary and knowledge of meaning. These interviews were audio-taped.

So far we have concentrated on the methods of data collection, the order in

which data was collected, the aims and objectives behind the use of

different sources of evidence and the procedures and test instruments that

were used in the study. The sample of informants used has remained fairly anonymous, in terms of the backgrounds of the students and their reasons for learning English. In the next section, profiles of the sample of learners used in the current study are given in more detail.

3.3 The Sample

Altogether, 45 learners were involved in the first part of the study (i.e. they were asked to complete questionnaires about the lesson they had just had). The written information procured from these 45 learners was used to help answer the first of the research questions. These informants were all adult Asian students learning English at a centre in Perth, Western Australia.

The main bulk of the information for this study, however, came from 24 of these learners who were chosen to be focused upon more closely. These informants were 9 male and 15 female students who studied English as a second or foreign language at a centre in Perth Western Australia between July and December 1993. They came from Korea, Japan, Indonesia, Thailand, Taiwan, India and Spain.

Some of the informants were enrolled for only 10 weeks. Others were enrolled for up to one year. Their reasons for being at the centre could generally be summarised as follows:

1. The informant wished to take a short course in general English then return to his/her country and take up a position in the workforce.

2. The informant wished to progress through the English courses at the centre until he/she reached the standard of English required to enter mainstream degree courses on campus. After completing a degree he/she intended to return to his/her home country.

3. The informant wished to progress through the English courses at the centre and then return home to study at a home university or tertiary institution.

4. The informant was not really sure why he/she was studying English at the centre.

This information was gleaned from a Background Information Sheet completed by informants after reading about the research and agreeing to be involved in it. From these information sheets the following profile of the 24 main informants was put together. Identification of the informants is coded using a small letter of the alphabet only.

IDENTITY	GENDER	AGE	NATIONALITY	LANGUAGE
a	M	20-25	Korean	Korean
b	F	16-20	Indonesian	Indonesian
c	M	20-25	Taiwanese	Mandarin
d	M	16-20	Japanese	Japanese
e	M	16-20	Indonesian	Indonesian
f	F	16-20	Thai	Thai
g	M	20-25	Japanese	Japanese
h	F	20-25	Indonesian	Indonesian
I	F	20-25	Thai	Thai
j	F	30-40	Indonesian	Indonesian
k	F	20-25	Japanese	Japanese
l	F	25-30	Japanese	Japanese
m	M	20-25	Indonesian	Indonesian
n	M	25-30	Indonesian	Indonesian
o	F	20-25	Japanese	Japanese
p	M	25-30	Spanish	Spanish
q	F	20-25	Indian	Hindi
r	F	30-40	Japanese	Japanese
s	F	20-25	Japanese	Japanese
t	F	16-20	Taiwanese	Mandarin
u	F	20-25	Japanese	Japanese
v	F	20-25	Taiwanese	Mandarin
w	F	20-25	Indonesian	Indonesian
x	M	16-20	Thai	Thai

Table 1: Background Information about the Main Informants in the Study

From the table we can see that the sample was predominantly Asian and between the ages of 16 and 25 years old. The background information sheets

also revealed that the average number of years learning English prior to their current studies was 6 or more years and this English was mostly learnt at school or university in their own country.

All of the students had completed high school in their home country and approximately half had completed university. The reasons given for studying English ranged from hoping to go on to do 'further studies' to ' just for the experience'.

The sample was chosen to represent the gender and nationality balance of the students enrolled at the centre. The population was predominantly female, Asian and between the ages of 16 and 25. Most of the students were Japanese. The second largest group were the Indonesians, followed by the Thais and the Taiwanese. Koreans varied in numbers but were still a definite presence each semester. Other nationalities form only a small part of the student population.

Informants were also selected according to their level of proficiency in English. An initial pilot investigation highlighted the problems involved in asking low level students of English to articulate their reflections. With this in mind, only students of upper intermediate or above English language proficiency were selected for the study. Informants' level of English was determined by their test score on the centre's *English Placement Test*. Within this level informants were from streams studying *English for Academic Purposes* and *English for*

General or Professional Purposes. Twenty of the informants were in the former stream and four the latter, reflecting the balance of numbers at the centre. The twenty informants were made up of 5 from the class called A which consisted of 13 students, 4 from class B consisting of 8 students, 10 from class C which consisted of 11 students overall and 5 from class D which consisted of 13 students in total.

Although only small numbers of informants were used from each class, the pattern of recollection, in terms of percentages of selected informants recalling certain vocabulary items, proved to be fairly representative of the class as a whole. In other words, the samples mirrored the class they were selected from on a micro level; recalling the same words that the class had recalled in the same proportion of instances. This is explained in more detail in the Analysis and Findings chapter.

3.4 Constraints

Although every effort was made by the researcher to make the study as reliable as possible, compromises had to be made. This is not an unusual occurrence as, unless we develop an instrument for merely tracking and observing anonymously the language learning behaviour of learners in their normal lives, (which is unethical anyway), artificial methods of data collection will always leave the researcher operating within the confines of possibility.

The methodological limitations of this study are looked at in some detail below in terms of the design of the study and the limitations of the sample of informants chosen to take part in the study. The limitations of the methods used to analyse the data are examined in the next chapter.

3.4.1 The Design of the Research

Questionnaires

Written questionnaires were deliberately open-ended and unstructured in order to encourage informants to record anything that they could remember about the new vocabulary in the lesson. Leading questions or restricting questions could also be avoided this way. However, this meant that informants often deviated from the original question when answering, or wandered onto other subjects not pertaining to the questions. A common problem was informants documenting what they usually did to help them recall new vocabulary rather than what they actually did in the lesson prior to the questionnaire. Although this was a constraint it also worked to alert me to the fact that written questionnaires (especially when dealing with speakers of English as a second language) were not an effective means of collecting data and that follow up interviews were essential.

Despite the drawbacks, the questionnaires did serve to get informants thinking about the events of the lesson before they were asked to comment upon these events in the interview which made responses in the interview much more

spontaneous.

Another constraint, when drawing tight conclusions about factors affecting recall of new vocabulary, was that questionnaires only provided information about items of vocabulary claimed to be new by informants rather than a report of all vocabulary recalled from each lesson (as Slimani did in her research). Questionnaires were designed this way because it was felt that it would be much easier for learners to recall words that stood out from the lesson as new than to give a running commentary about all the input provided in the lesson. However, this meant that when it came to making claims about factors that might affect recall of words, it was only possible to propose relationships or links between such variables (for example amount of focus on words) and amount of recall. In other words, there was no way of knowing whether words in the lesson were not reported by learners because they were not new to learners or because they had not in fact been noticed and recalled.

As the present study was intended as a description of what learners 'claimed' was new for them, and what they did recall from lessons rather than what they did not, a decision was made to trust the learner to only report words that were new for them and to keep with the spirit of a more open-ended, learner based approach rather than a tightly controlled experimental one. Information was used to make observations and tentative hypotheses rather than definitive claims.

Interviews

Informants were asked to articulate each vocabulary item and give a meaning for it during interview. It was assumed that if the informant was unable to articulate a meaning that they had not recalled the vocabulary item. This of course depended upon the informant's performance during interview and brings up the old debate of language competence versus language performance. In an attempt to overcome this potential constraint, informants were given a lot of latitude with pronunciation, meanings and spellings and items were accepted as recalled if the informant could put them into appropriate contexts to highlight their meanings. Gesture and mime were acceptable to show meaning.

The non-native speaker status of informants meant that questions from the interviewer to the informant were often necessary to further clarify meaning. Questions mostly took the form of the following:

Could you explain in more detail?

Could you say that again please?

What do you mean by ....?

Is this ....?

Questions like those above were vital if informants were to be given a chance to show what they knew. Reformulations of what the informant said were avoided unless it was just a matter of summarising in the informant's words what he or she had said and asking for confirmation.

Slightly incorrect pronunciations or spellings (e.g. *garah* instead of *galah*) were corrected either directly by telling the informant during the interview or indirectly by reinforcing the correct form in further interviews or tests. The ethics of leaving informants misinformed came into play here and as most informants said they had agreed to be involved in the study because they might learn something from it, it was felt that feedback of this kind was warranted and not detrimental to the study in any way.

Test Instruments

Test 1 *The Yes /No Word Check-List*

The test did not test totally unprompted retention. Seeing the vocabulary items in a list provided help for recognition memory and hence the word check-list may have tested recognition of the vocabulary items rather than totally unprompted recall. However, although informants were provided with the vocabulary items they were not provided with any clues as to the meaning of the item and retention was defined as word plus meaning.

The test could be seen as a tool to help reinforcement of the meaning of new vocabulary items but the different procedures used for Group 1 and Group 2 showed that in fact this effect was only minimal if indeed it existed at all. The test effect was also of interest to the researcher.

Test 2 *The Vocabulary Level Test*

Seeing the vocabulary items and possible meanings was an aid to retention
and the test provided revision of the vocabulary items retained. Testing of
'part' vocabulary items such as *micro* or *scope* would have been problematic
with this test but in fact, informants who retained part vocabulary did not remain
at the centre long enough to take part in this stage of the research and
therefore the test did not need to take into account this scenario.

Definitions provided were worded as closely as possible to the meanings given
by informants in the first interview, which meant that sometimes they were not
as specific or all-encompassing as might be hoped.

The design of the test also meant that informants could use strategies to match
the parts of speech. For example, verbs to verbs, nouns to nouns etc. This is
one of the limitations of the test itself, however, and something that has to
accepted if this test is to be used.

Procedure

Informants were observed in only one lesson due to natural attrition at the
centre; interruption of the curriculum and obtrusive video taping made multiple
observations of informants and teachers problematic. Although this was not
ideal, it was better than placing students and teachers in high anxiety situations

which would affect the data. Video taping lessons had the potential to either inhibit informants or cause them to act to the camera and bring into play the 'observer's paradox'. As a result of all this then the study ended up being much more 'one shot' than originally intended with student profiles being compiled from only one lesson.

A further limitation of the study was the inability to control any revision work on new vocabulary items done by either the teacher or the informant at home or in class between interviews and tests. This did not prove to be too much of a problem as the idea was to trace what items were retained and if they bore any resemblance to the vocabulary items initially recalled by informants during the observed lesson, regardless of any revision work that might have taken place along the way.

Interviews and tests were given with no prior notice in an effort to prevent informants 'studying' for them.

The Sample

The sample as mentioned earlier was small and restricted to students studying at one particular language centre on a fairly short-term basis. There were unequal numbers of men and women (40% male and 60% female) and they were all between the ages of 16 and 40. Out of a sample of 24 only one

informant was not Asian. Although the specificness of the sample presented itself as a constraint, in fact, the sample was very representative of the student population at the centre and indeed many other similar centres around Perth.

All of the informants were of an upper-intermediate or higher level of English proficiency, as reasonable to good proficiency was required in order for informants to be able to articulate reflections accurately and comprehensibly. All the lessons used in the study were teacher-fronted lessons. There was some pair or group work but on the whole the interaction pattern was teacher to student and student to teacher. Lessons set up totally as group work were not used in the study because, as mentioned earlier, it proved to be too difficult during the pilot study to pan the video camera around the entire class and capture all the dialogue of learners as well as paralinguistic features. Teacher-fronted lessons, with the camera focusing on one particular group of informants and the teacher and some audio input from the rest of the learners in the class, were manageable. Student centred lessons in which each group of learners formed a separate microcosm of interaction were beyond the scope of this researcher and the equipment I had at my disposal. Study of such student-centred lessons remains to be done in a study other than this one. For a more detailed picture of the interaction patterns of the lessons see Appendix 4.

Overall

The study did not test 'deep knowledge', as Krashen (1989) terms it, of new

vocabulary items. However, the aim of the study was to look at *uptake* (as Slimani, 1987 terms it) or *intake* (as some cognitive psychologists call it), not learning or acquisition. To test the former would require a very different approach and a much more longitudinal study. Apart from this, the study was concerned with the factors that facilitate noticing and recall as much as those that affect long term retention.

During the questionnaire and interviews conducted directly after each lesson, there was a heavy reliance on what Tulving (1972) called the *episodic memory* of informants. They were asked to think back and recall events surrounding the noticing of a particular vocabulary item. Allwright (1989) places great faith in the learners' ability to introspect accurately and many researchers (Slimani, 1987 and Cherchalli, 1988) have used the same technique in their studies. However, studies of the accuracy of eye witness accounts of events have not been encouraging to date. Therefore, we can only speculate that reflection upon your own metacognitive processes is more accurate than retracing external events that were peripheral to your own experience. Nonetheless, we must keep in mind that with regard to this present study we were still relying upon the informants' ideas of reality for those events and a lot of the events that informants named as important in aiding recall were metacognitive and therefore unable to be confirmed by the video recording of the classroom interaction.

3.5 Overview of the Chapter

Methodological Rationale

The current study sought to be guided by the rationale offered by *Classroom Process Research* (Gaies, 1983) which states that the idea that there is any one effective method of teaching is too simplistic. The study not only aimed to describe the second language learning environment fully but recognised the value of direct observation of learners in lessons and the importance of their introspections. Finally, the researcher agrees with the notion of diversified approaches in the research method.

Background to the Research Design

Previous studies to this one (Cherchalli, 1988 and Slimani, 1987) have endeavoured to make use of direct observation and learners' own interpretations of the events of a lesson. They have been qualitative and descriptive in design.

Background to the Test Instrument

The construct validity of the test is of the utmost importance. The researcher had to decide whether to test words in isolation or in context and consider previous knowledge, ability and willingness to do the test, compatibility of the testing procedure to the learning procedure and the ability of the test to test long term retention.

Some examples of vocabulary tests are:

1.   *The Yes /No Test*

2.   *The Vocabulary Level Test*

3.   *The Cambridge First Certificate Paper 1*

4.   *The ITBS Reading and Vocabulary Knowledge Test*

The current researcher chose to use the Yes/No Test and the Vocabulary Levels Test to test learner retention of new vocabulary in this study.

In general, the research aimed to be descriptive and therefore needed to be designed to accommodate this *Tell me why* or *heuristic* approach. This could only be done by collecting many sources of evidence. As seen in the section *Sources of Evidence,* questionnaires were open-ended, one to one interviews were loosely structured and classroom observation was designed to capture the entire discourse of the informants concerned. The study was data driven; not seeking to prove or disprove any specific hypotheses but rather to form them. The preoccupation was with 'why' and 'how'.

Alongside this qualitative approach, however, it was necessary to incorporate a more analytic, quantitative approach when looking at the results of testing or analysing variables in the classroom interaction in terms of frequency etc. Informants were tested on discrete point tests over a period of time for long term retention of vocabulary items, using validated test instruments. Trends in retention and reasons for recall were also quantified.

The study was mostly cross-sectional in nature although learners were interviewed and tested over an eight week period. This was not ideal but was unavoidable with a group of learners on short term stays. The learners were all attending English classes on a short term basis at a centre in Perth and were predominantly Asian females between the ages of 16 and 25.

There were constraints on the research design which were imposed by the use of questionnaires, the design of the questionnaires, the fact that the informants were second language learners, the test instruments and the sample. These limitations were:

1. The questionnaires were interpreted differently by some of the informants. Answers were based on what usually happens to aid recall of words rather than what had happened in the particular lesson prior to the questionnaire.

2. The questionnaires did not ask what vocabulary from the lesson was already known to the informants. Therefore it was difficult to know whether certain words had not been reported in the questionnaire because they were already known to the informant or whether they were new words that had not been recalled.

3. The interviews required the researcher to ask questions and clarify because the informants were second language learners.

4. Neither of the tests tested total unprompted recall. Both tested recognition memory. Strategies could be used by informants to get

correct answers in Test Two.

5. Informants were only given 'snapshot' observations and extra-curricular revision of the new vocabulary could not be monitored.

6. The sample was very specific and the lessons used in the study were all teacher-fronted.

8. Overall, however, the findings of the study were of interest despite these constraints.

In this chapter the methodological rationale behind the design of the study and the use of certain test instruments was discussed. An attempt was made to show why varied sources of evidence were used and the part they played within the overall aims of the study. The reader was then provided with a step by step procedure to follow in the event that replication of this study should be contemplated, alongside constraints to keep in mind. Characteristics of the sample of learners were then revealed.

In the next chapter the researcher takes the reader through the findings from all of these procedures and simultaneously outlines the methods of analysis used and constraints on those methods.

Chapter 4 - *Analysis and Findings*

When conducting such an open-ended study as this one, the result is an overwhelming amount of data. The question is where to start in terms of making sense of the results of such a study. For this reason, the findings of the study are listed under headings connected to the original research questions.

The first part addresses the question *What vocabulary is recalled and retained from lessons?*

In this section findings pertaining to the amount, uniformity, variability, kind of vocabulary and long term retention of that vocabulary is presented. The second part is devoted to providing some answers to the research question *Why do adult EL learners recall the vocabulary that they do from lessons?*

In this section informants give their considered reasons as to why they noticed and recalled certain words during and after the lesson. The profiles of the different learners are examined and the interconnectedness of the reasons given by learners highlighted.

Finally, observations made by the researcher about the classroom interaction are reported and any trends in vocabulary recall that could be linked with events in the classroom discourse explained.

Throughout the chapter, apart from when the researcher is looking at the

amount and variability of vocabulary recalled by learners in the sample after each lesson, the researcher focuses mainly on those words recalled by 25% or more of learners. This is because, although the researcher was interested in reporting upon the amount of variability of recall experienced by learners, variables that made certain words more recallable for everyone were of particular interest. Indeed, the main thrust of the study was to attempt to give reasons (both from the learner and through researcher observation) as to why certain vocabulary items were recalled more often than others by learners after lessons. In other words, the researcher was interested in trends in reasons for recall rather than isolated, idiosyncratic reasons for recall.

4.1 Vocabulary Recalled

In this first part findings which shed some light on the vocabulary that was recalled by learners is reported. The reader is presented with the number of words recalled and the amount of variability and uniformity between the words recalled by the sample of learners is reported.

The uniformity of recall is investigated in some depth as the researcher was keen to find out why certain words were recalled by the learners on mass and others only recalled by a single informant. This interest in uniform recall of new words is exemplified in the way that from this point onwards the researcher only investigates those new words recalled by 25% or more of the learners in the

sample. Following this, the linguistic characteristics of those words recalled by 25% or more of the learners are investigated. The researcher reports findings related to concreteness/abstractness or positivity/negativity of the words recalled and the most common parts of speech to be recalled. Moving on, findings about long term retention of those words recalled are reported and all of the findings in this section are summarised.

4.1.1 Amount

Questionnaires were collected after each lesson and the vocabulary items recalled by each of the informants in part one of the questionnaire recorded. A list of these vocabulary items was then made for each lesson and each informant. The first list constituted the different vocabulary items recalled by the entire sample of informants. The second list was made up of the vocabulary items recalled by individual informants. (This second list can be seen in Appendix 1).

Overall 152 vocabulary items were recalled by 24 informants (this does not mean 152 different vocabulary items but the total number of words recalled). Of these, 133 were both the word and the meaning (strong recall) and 19 were just the word (weak recall). This means that, on average, informants recalled 6 words each. However, on an individual basis some informants recalled as little as 1 word each whilst others recalled up to 12 words each.

On a class by class basis, Class A (informants a-e) recalled an average of 8 words, Class B (informants f-l) recalled an average of 8.75 words, Class C (informants j-s) recalled an average of 4.7 words and Class D (informants t-x) recalled an average of 6.4 words.

Tables 2 and 3 show the vocabulary items recalled by each informant directly after each lesson. Informants a-e attended the same lesson, f-l attended the same lesson, j-s attended the same lesson and t-x attended the same lesson.

Inf	a*	b*	c*	d*	e*	f^
Word + Meaning (Strong Recall)	cue aggressive merely butt	ogle hose porch swerved butt merely aggressive dowdy trigger	ogle hose dowdy bench merely aggressive trigger butt trivet	disguise butt dowdy	ogle hose butt cue merely	platypus fin reservation pest wild domestic species pip
Sub-total	4	9	9	3	5	8
Word - Meaning (Weak Recall)	trigger resent	trivet disguised cue	foibles	cue ogle	-	predator estimate
Sub-total	2	3	1	2	-	2
Total	6	12	10	5	5	10

Inf.	g^	h^	i^	j#	k#	l#
Word + Meaning (Strong Recall)	axe extinct board pip galahs	axe conservation niches disastrous pest plague fin predator possums pouch marsupial pip	predator pip nonrenewable isolate pest	spectacles emerge eruption glance microscopic insane immoral	principal observation inhale exhale inspector concentor spectator hanging out for repetition emerge	emerge concentric observant inflammable
Sub-total	5	12	5	7	10	4
Word - Meaning (Weak Recall)	-	pastures inadvertently delicate	-	-	-	-
Sub-total	-	3	-	-	-	-
Total	5	15	5	7	10	4

KEY: *=Class A ^=Class B #=Class C >=Class D

Table 2: New Vocabulary Items Recalled by Informants a-l after each Lesson

Inf.	m#	n#	o#	p#	q#	r#
Word + Meaning (Strong Recall)	volcano glance emerge spectacle mono micro	volcano insane spectacle	inflammable invaluable observant imitative emerge	glance stem	observation emerged prefixes suffixes stem	inhale siliconic affix insane
Sub-total	6	3	5	2	5	4
Word - Meaning (Weak Recall)	-	-	-	-	-	-
Sub-total	-	-	-	-	-	-
Total	6	3	5	2	5	4

Inf.	s#	t>	u>	v>	w>	x>
Word + Meaning (Strong Recall)	misfortune	understudy disc jockey	puppet lyrics conjurer understudy foyer	scriptwriter understudy conjurer foyer	lyric travelogue libretto footlight foyer conjurer aisle understudy interval	rehearsal magical record footlights foyer reservation
Sub-total	1	2	5	4	9	6
Word - Meaning (Weak Recall)	-	foyer	monologue dialogue	-	monologue	understudy aisle
Sub-total	-	1	2	-	1	2
Total	1	3	7	4	10	8

Total Words Strong Recall=133
Total Words Weak Recall=19
Total Words Recalled=152
Key: *=Class A ^=Class B #=Class C >=Class D

Table 3: New Vocabulary Items Recalled by Informants m-x after each Lesson

Looking at Tables 2 and 3 it can be seen at a glance that the number of words recalled by each informant varied greatly from informant s# only able to recall one new word strongly to informant h^ who recalled 12 new words strongly and 3 weakly.

We can also see that some items of vocabulary were recalled more often by informants than other words that appeared in the same lesson. This will be discussed in the next section.

4.1.2 Uniformity and Variability

Although the study sought to gather information about all the new vocabulary recalled by learners' from lessons, items recalled more frequently than others were of particular interest to the researcher. So the amount of times a word was recalled was recorded next to the word and those words recalled by more than 25% of the informants from any lesson were assumed to have been made particularly noticeable during that lesson. The words recalled by more than 25% of the learners in the samples from each class formed the basis for the analysis that is to follow except where it is specified that this is not the case.

Table 4 shows the vocabulary items that were recalled by 75% or more of informants, 50% to 74% of informants and 25% to 49% of informants.

% of Informant Sample from Each Lesson/Class that Recalled the Words	Word	Fraction of Informant Sample from Each Lesson/Class that recalled the Word	Total
75% or More	butt understudy foyer pip ogle cue predator pest	5/5 5/5 5/5 4/4 4/5 4/5 3/4 3/4	33
50% to 74%	emerge dowdy trigger merely conjurer hose aggressive axe fin	6/10 3/5 3/5 3/5 3/5 3/5 3/5 2/4 2/4	28
25% to 49%	resent lyrics monologue glance insane niche(s) plague	2/5 2/5 2/5 3/10 3/10 1/4 1/4	14

Grand Total=75

Table 4: Vocabulary Items Recalled by 25% or More of Informants from each Sample

Looking at Table 4 we can see that 75 out of the 152 words were recalled by 25% or more informants. This is about a 49% level of uniformity in the lexical items recalled. Breaking the figures down further, 33 out of the total 152 words (22%) were recalled by more than 75% of informants (from each class), 28 out of the 152 (18%) were recalled by 50% to 74% of informants and 14 out of the 152 (9%) were recalled by 25% to 49% of informants. Conversely 51% of the vocabulary items recalled were recalled by one or very few informants illustrating slightly more variable recall than uniform recall from the lesson.

In terms of classes, Class A was the most uniform in the items of vocabulary recalled, with 9 words out of 16 different words (56%) being recalled by 25%

or more of informants from that class. Class B was next with 7 vocabulary items out of 24 (29%) recalled by 25% or more of informants. Class D had 5 items out of 18 (27%) recalled and Class C only had 3 items out of 22 (14%) recalled by more than 25% of the learners in that class (see Appendix 1 for complete lists).

A close look at Tables 2 and 3 reveals some words that have been recalled slightly inaccurately by informants. For example, *concentric* became *concentor* and *inspector* became *spectator.* On a few occasions words were changed slightly by the informant from the form originally encountered in the lesson but were still very recognisable . These vocabulary items were included in the count when the meaning given was that of the original word.

'Part' words such as *mono* and *micro* were also included in the count if they were lexemes that carried meaning and were given correct meaning by the informant during interview. This situation only arose in the questionnaires and interviews of Class C where one of the vocabulary items introduced by the teacher in order to highlight the use of word stems was *pneumonoultramicroscopicsilicovolcanoconiosis.* Items of vocabulary that were misspelt or pronounced wrongly but easily recognisable were counted as recalled.

4.1.3 Linguistic Characteristics

Investigation of the features of the vocabulary items recalled could not be as thorough as many studies devoted entirely to looking at word memorability. It was impossible, for example, to comment on the ease of pronounceability of

new words for informants or the similarity of the new words to words known in the languages of all the informants. It was also beyond the scope of the study to investigate whether informants were reacting to the form of the noticed word or the meaning of it, although learners did comment sometimes on this during the interviews in which they were asked to state why they had recalled certain items of vocabulary. Characteristics of the recalled words that could be investigated were the length of the word (in terms of syllables), the part of speech, whether it was positive, negative or neutral in meaning and whether it had a concrete or abstract referent in the context that it was used. The results of this analysis are shown in Tables 5, 6 and 7.

Informant	Vocabulary Items	No of Syllables	Part of Speech (As it is in the lesson) Noun=n Verb=v Adjective=adj Adverb=adv	Meaning= Positive + Negative- Neutral 0	Meaning= Concrete C Abstract A
a	aggressive	3	adj	-	A
	butt	1	n	0	A
	cue	1	n	0	A
	merely	2	adv	0	A
	trigger	2	v	0	A
	resent	2	v	-	A
b	ogle	2	v	-	A
	hose	1	n	0	C
	butt	1	n	0	A
	aggressive	3	adj	-	A
	dowdy	2	adj	-	A
	merely	2	adv	0	A
	trigger	2	v	0	A
	cue	1	n	0	A
c	ogle	2	v	-	A
	hose	1	n	0	C
	dowdy	2	adj	-	A
	aggressive	3	adj	-	A
	trigger	2	v	0	A
	butt	1	n	0	A
d	butt	1	n	0	A
	dowdy	2	adj	-	A
	cue	1	n	0	A
	ogle	2	v	-	A
	resent	2	v	-	A
e	ogle	2	v	-	A
	hose	1	n	0	C
	butt	1	n	0	A
	cue	1	n	0	A
	merely	2	adv	0	A
Class A Totals	No of items=30	1 syll=12 2 syll=15 >2=3	n=12 v=9 adj=6 adv=3	+=0 -=12 0=18	C=3 A=27
f	fin	1	n	0	C
	pest	1	n	-	A
	pip	1	n	0	C
	predator	3	n	-	A

Table 5: Some Characteristics of the Words Recalled by 25% or More of Informants (Informants a-f)

Informant	Vocabulary Items	No of Syllables	Part of Speech (As it is in the lesson) Noun=n Verb=v Adjective=adj Adverb=adv	Meaning= Positive+ Negative- Neutral 0	Meaning= Concrete C Abstract A
g	axe	1	n	0	C
	pip	1	n	0	C
h	axe	1	n	0	C
	niches	2	n	0	C
	pest	1	n	-	C
	plague	1	n	-	C
	fin	1	n	0	C
	predator	3	n	-	C
	pip	1	n	0	C
i	predator	3	n	-	C
	pip	1	n	0	C
	pest	1	n	-	C
Class B	No of items=16	1 syll=12 2 syll=1 >2syll=3	n=16 v=0 adj=0 adv=0	+=0 -=7 0=9	C=14 A=2
j	emerge	2	v	0	A
	glance	1	v	0	A
	insane	2	adj	-	A
k	emerge	2	v	0	A
l	emerge	2	v	0	A
m	glance	1	v	0	A
	emerge	2	v	0	A
n	insane	2	adj	-	A
o	emerge	2	v	0	A
p	glance	1	v	0	A
q	emerged	2	v	0	A

Table 6: Some Characteristics of the Words Recalled by 25% or More of Informants (Informants g-q)

Informant	Vocabulary Items	No of Syllables	Part of Speech (As it is in the lesson) Noun=n Verb=v Adjective=adj Adverb=adv	Meaning= Positive+ Negative- Neutral 0	Meaning= Concrete C Abstract A
r	insane	2	adj	.	A
s	.	.	.	.	.
Class C	No of items=12	1 syll=3 2 syll=9 >2=0	n=0 v=9 adj=3 adv=0	+=0 -=3 0=9	C=0 A=12
t	understudy foyer	4 2	n n	0 0	A C
u	lyncs conjurer understudy foyer monologue	2 3 4 2 3	n n n n n	0 0 0 0 0	A C C C A
v	understudy conjurer foyer	4 3 2	n n n	0 0 0	C C C
w	lyric foyer conjurer understudy monologue	2 2 3 4 3	n n n n n	0 0 0 0 0	C C C C C
x	foyer understudy	2 4	n n	0 0	C C
Class D	No of items=17	1 syll=0 2 syll=7 >2 syll=10	n=17 v=0 adj=0 adv=0	+=0 -=0 0=17	C=14 A=3
Grand Totals	No of items=75	1 syll=27 2 syll=32 >2 syll=16	n=45 v=18 adj=9 adv=3	+=0 -=22 0=53	C=31 A=44

Table 7: Some Characteristics of the Words Recalled by 25% or More of Informants (Informants r-x)

Looking at Table 7 we can see that certain trends could be observed in the types of words recalled by informants. These trends tell us about the length of words recalled, the part of speech recalled the most often, whether the words

were positive, negative or neutral, concrete or abstract. Details of these trends are outlined below.

Length of the Words

Of the 75 words recalled by 25% or more of the informants 27 were words of only one syllable, 32 were words of two syllables and 16 were words of more than two syllables. There seemed to be no particular pattern across the different class samples but within classes there seemed to be some evidence of certain trends. Class A, consisting of informants a-e, recalled mostly two syllable words (15 out of 30); Class B, consisting of informants f-l, recalled mostly one syllable words (12 out of 16); Class C, consisting of informants j-s, recalled mostly two syllable words (9 out of 12) and Class D, consisting of informants t-x, recalled mostly words with more than two syllables (10 out of 17).

Parts of Speech

Nouns were the most common in the vocabulary items recalled overall (45 out of 75), with verbs coming next (18 out of 75), adjectives after that (9 out of 75) and finally adverbs (3 out of 75). However, different classes had different results. Class C recalled only verbs and adjectives whereas the other classes recalled predominantly nouns.

Positive, Negative or Neutral

Words which were generally considered to have positive connotations or reference to something 'good' were called *positive* vocabulary items by the researcher. Words which had negative connotations or referred to something

generally agreed to be 'bad' were called *negative* vocabulary items and words which did not either of these connotations were called *neutral*.

No positive vocabulary items were recalled at all but 53 neutral words were recalled alongside 22 negative words. In other words, 71% of the words recalled were neutral in meaning and 29% were negative in meaning. 0% were positive. This same trend was born out in each class.

Concrete Versus Abstract

According to the *Longman Dictionary of Applied Linguistics* (J Richards, J Platt and H Weber, 1985, p86) *concrete* vocabulary is vocabulary (usually nouns) that refers to a physical thing, rather than a quality, state or action. *Abstract* vocabulary refers to a quality, state or action. Overall abstract vocabulary items were slightly more abundant in the words recalled by informants (44 out of 75) than concrete words (31 out of 75). However, the figures were very close. Individual classes differed from this pattern though, with Classes A and C recalling a lot more abstract vocabulary (27 out of 30 and 12 out of 12) and Classes B and D recalling mostly concrete vocabulary (14 out of 16 and 14 out of 17).

4.2 Long Term Retention

The questionnaires used in the study asked informants to record the 'new' vocabulary they could recall from the lesson in which they had just participated.

This part of the data collection procedure was designed to report on immediate recall by learners after a lesson. However, the study also wished to report upon the long term retention of the words recalled by learners immediately after any lesson. With this in mind, Retention Tests 1 and 2 were given to informants after several weeks. Informants were tested on all the words they had recalled after the lesson. Only the results for those vocabulary items recalled by more than 25% of the informants, however, were of interest to the researcher as these were the words that had obviously been made memorable for quite a few learners for some reason.

Table 8 shows those words recalled by 25% or more of informants immediately after the lesson.

Inf.	a	b	c	d	e	f	g	h
Strong Recall	aggressive butt merely cue	ogle hose butt aggressive dowdy merely trigger	ogle hose dowdy aggressive trigger butt	butt dowdy	ogle hose butt cue merely	fin pest pip	axe pip	axe niches pest plague fin predator pip
Total	4	7	6	2	5	3	2	7
Weak recall	trigger resent	cue	-	cue ogle resent	-	predator	-	-
Total	2	1	0	3	0	1	0	0

Informant	i	j	k	l	m	n	o	p
Strong Recall	predator pip pest	emerge glance insane	emerge	emerge	glance emerge	insane	emerge	glance
Total	3	3	1	1	2	1	1	1
Weak Recall	-	-	-	-	-	-	-	-
Total	0	0	0	0	0	0	0	0

Informant	q	r	s	t	u	v	w	x
Strong Recall	emerged	insane	-	understudy	lyrics conjurer understudy foyer	understudy conjurer foyer	lyric foyer conjurer understudy	foyer
Total	1	1	0	1	4	3	4	1
Weak Recall	-	-	-	-	monologue	-	monologue	understudy
Total	0	0	0	0	1	0	1	1

TOTAL STRONG RECALL= 64 WORDS

TOTAL WEAK RECALL= 11 WORDS

TOTAL= 75 WORDS

Table 8: Vocabulary Recalled by 25% or More of Informants Immediately After the Lesson

Looking at Table 8 we can see that out of the 75 words recalled by 25% or more of the learners, 64 words were recalled strongly and 11 words recalled

weakly straight after the lessons. These results are true for the entire sample of informants. In order to gauge test effect on retention rates of vocabulary, informants were split into two groups. Group 1, consisting of informants f-x, received two retention tests, one after 2 weeks and another one after a further 4 weeks. Group 2 was only tested once after a six week period. Tables 9 and 10 below show the long term retention rates for informants in Group 1 (informants f-x) after 2 weeks and 6 weeks.

Retn. After 2 Weeks (Strong Recall)	predator pest pip fin	axe	predator pest pip axe plague fin	predator pest pip	emerge glance	emerge	.	emerge	.	.
(Weak Recall)	.	.	.	.	.	.	.	.	.	.
Total	4	1	6	3	2	1	0	1	0	0
Retn. After 6 Weeks	predator pest pip fin	pip axe	predator pest pip axe plague niches fin	predator pest pip	▓	emerge	▓	▓	▓	emerge
Total	4	2	7	3		1				1

Retn. After 2 Weeks (Strong Recall)	glance	.	insane	.	understudy foyer	understudy lyrics conjurer monologue	understudy foyer conjurer	understudy foyer lyrics conjurer monologue	understudy foyer
(Weak Recall)	.	.	.	.	.	.	.	.	.
Total	1	.	1	.	2	4	3	5	2
Retn. After 6 Weeks	▓	▓	insane	▓	understudy foyer	understudy lyrics foyer conjurer monologue	understudy foyer conjurer	understudy foyer lyrics conjurer monologue	understudy foyer
Total		1		2	5	3	5	2	

WORDS RETAINED= 36

Key

Lightly shaded areas = informant not available to be tested

Table 9: Group 1 : Informants f-x. Retention of New Vocabulary Items Recalled by 25% or More of Informants After 2 Weeks and 6 Weeks.

Informant	f	g	h	i	j	k	l	m	n	o
Vocab. recalled after the lesson Strong Weak	3 1	2 0	7 0	3 0	3 0	1 0	1 0	2 0	1 0	1 0
Total	4	2	7	3	3	1	1	2	1	1
Retention After 2 Weeks	4	1	6	3	2	1	0	1	0	0
% Retained	100%	50%	86%	100%	67%	100%	0%	50%	0%	0%
Retention After 6 Weeks	4	2	7	3		1				1
% Retained	100%	100%	100%	100%		100%				100%

Informant	p	q	r	s	t	u	v	w	x
Vocab. recalled after the lesson Strong Weak	1 0	1 0	1 0	0 0	1 1	4 1	3 0	4 1	1 1
Total	1	1	1	0	2	5	3	5	2
Retention After 2 Weeks	1	0	1	0	2	4	3	5	2
% Retained	100%	0%	100%	0%	100%	80%	100%	100%	100%
Retention After 6 Weeks			1		2	5	3	5	2
% Retained			100%		100%	100%	100%	100%	100%

RETENTION AFTER 2 WEEKS

Mean = 65%
Mode = 100%
Median = 86%

RETENTION AFTER 6 WEEKS

Mean = 100%
Mode = 100%
Median = 100%

Table 10: Numerical Representation of Retention of Recalled Vocabulary After 2 Weeks and 6 Weeks by Informants f-x (Group 1)

Table 10 shows a mean vocabulary retention rate of 65% for Group 1

(informants f-x) after 2 weeks and a mean retention rate of 100% after 6 weeks.

Looking at averages or means only can sometimes be misleading and so the

mode and median scores were also noted. The mode was 100% compared with the mean of 65% which highlights the variability in individual scores; some informants scoring 100% and others scoring 0%. The median score was 86% which probably gives a more balanced view of the retention rates overall. Table 9 highlights individual performance on the tests. The individual performance after 6 weeks could not be reported on in some cases as informants had to leave the study prematurely in order to return home to their countries.

Table 9 shows that 5 out of the 19 vocabulary items that were recalled only weakly after the lesson (i.e. the word but not the meaning) as seen in Table 8 were recalled strongly (i.e. the word and the meaning) after an interval of two weeks. Alongside this, meanings for recalled words that had been a little vague in some instances were much tighter and more detailed.

We can see from Tables 9 and 10, that retention rates were lower in the first test conducted after 2 weeks than in the final test. They dropped down to a mean of 65% [median figure of 86%] and then increased again to 100%. This could be attributed to test effect, so, in order to check this, Class A or Group 2 (informants a-e) underwent a slightly different procedure, being tested only once after 6 weeks and the results were as shown in Tables 11 and 12.

Informant	a	b	c	d	e
Retention After 6 Weeks	trigger cue	aggressive butt hose ogle dowdy merely	butt hose trigger ogle dowdy	butt ogle cue resent dowdy	butt hose ogle cue merely
Total	2	6	5	5	5

TOTAL WORDS RETAINED = 23

Table 11: Group 2. Informants a-e. Retention after 6 weeks of New Vocabulary Items Recalled by 25% or More of Informants

Informant	a	b	c	d	e
Vocabulary recalled after the lesson **Strong** **Weak**	4 2	7 1	6 0	2 3	5 0
Total	6	8	6	5	5
Retention After 6 Weeks	2	6	5	5	5
% Retained	33%	75%	84%	100%	100%

RETENTION AFTER 6 WEEKS

Mean = 78%
Mode = 100%
Median = 84%

Table 12: Numerical Representation of Retention Recalled Vocabulary After 6 Weeks by Informants a-e (Group 1)

The 5 informants in Tables 11 and 12 did not receive an interim test and yet

the mean retention rate was 78% with a median retention rate of 84% and a

mode of 100%. The mode score highlights the variability in retention rates, with

a lot of informants scoring 100% but one informant scoring only 33%. The end

result is not as high as the result obtained when informants received two tests but it is still a very high retention rate. A test effect was at work to some extent but it clearly was not entirely responsible for the high retention rates.

Table 13 shows the breakdown in terms of classes.

Group	Class	After 2 Weeks	After 6 Weeks
1	B	87%	100%
	C	50%	100%
	D	94%	100%
2	A	-	78%

Table 13: Rates of Retention of Vocabulary for Each Class

It should be remembered at this stage that only three out of the ten informants comprising Class C were able to be tested after six weeks hence the figure after two weeks is the more interesting figure.

4.3 Reasons Given by Learners for Recall of Vocabulary

In this part of the chapter, attention is turned to what the learners themselves said about their learning of vocabulary. The range of reasons given for recall of new vocabulary by learners are categorised and the interconnectedness of these categories highlighted. Individual learners are then looked at more closely with a profile of each learner and the reasons they gave for recall of certain vocabulary items outlined.

4.3.1 Range

Part two of the questionnaire required informants to think back through the lesson and suggest reasons why a particular item of vocabulary had been noticed and then recalled by them. Some informants responded with a surprising number of reasons for each item. Others had trouble either understanding the question or knowing how to respond and wrote down very little or wrote down inappropriate information telling the researcher how they usually learnt something rather than why they had noticed what they did in this particular lesson.

Reasons given during interview, however, were closely reflected upon by informants with informants being able to ask questions and receive feedback and the interviewer also being able to reformulate and grade questions (see Appendix 2). This improvement in performance during interview as opposed to questionnaire highlighted the importance of such a form of data collection when

dealing with informants and especially learners of English as a Second language. Each interview was listened to and the reasons for recall given by each informant transcribed next to the word recalled. An example of the procedure is given below. (For the entire document see Appendix 2 Class C).

Word	Informant	Reasons Given for Recall
emerge	o	*He explained again and again (the teacher)*
	l	*In the class (the teacher)said another word give me...I found another word 'appear'*
	l	*...because I couldn't catch the sentence on the tape 'cause that was a new word.Many Japanese students didn't catch it either so he(the teacher) explained it to us...the meaning*
	m	*He(informant p) said it is 'come' and 'come ' is 'appear'...because I said 'appear'*
	j	*After all the students give information about using other word 'appear'...*

4.3.2 Categorising the Reasons

A list of *delicate* categories of reasons was then established. By *delicate* what is meant is that each category was worded as closely as possible to the original wording given by the informant in the interview conducted after the lesson but made slightly broader so that more than one comment by informants could be incorporated into any category. For instance the comment given by informant o in the example already given, was put into the delicate category

of 'Teacher Explanation' as was the second part of the comment made by informant I. The comment made by informant I was put into the delicate category of 'Correct Response to Teacher Elicitation'. The first comment made by informant I into the category ' In the Exercise but Unable to Solve' and so on. (For a complete breakdown of the allocation of every utterance see Appendix 2).

In all, 37 'delicate' categories were created (which highlights the wide range of reasons given by informants for recall). In order to deduce a clearer pattern of learner lessons these delicate categories were then arranged into superordinate categories. This was done first of all by putting together all the delicate categories which had as their main overarching idea some kind of previous learning on the part of the learner. Secondly, all those delicate categories relating to the idea of a personal agenda on the part of the learner were grouped together. Every delicate category to do with classroom interaction was then put together. Next every category that seemed to have in common that recall had been due to problems experienced in the lesson that were then worked on straight after the lesson outside the classroom and finally all those delicate categories that referred to some kind of interaction with text or data were grouped together. The original result was 5 superordinate categories as follows:

1.   *Previous Learning/ Beyond the Classroom*

2.   *Personal Agenda/Priorities*

3.   *Classroom Interaction*

4.   *Interaction with the Data*

5.   *Problematic Learning*

The original categories, once divided into five superordinate categories, could also be grouped into 10 subordinate sets of reasons. These were arrived at by looking once again at the delicate categories placed into each superordinate category and deciding if certain delicate categories had more in common with each than others. If they did, they were placed together into subordinate categories within the superordinate categories.

Within *Personal Agenda/Priorities* there appeared to be a natural divide between those delicate categories that focused upon the *need* of the informant to retain the word and those that focused upon the *relevance* of the vocabulary items to the informant. Within *Classroom Interaction*, delicate categories clustered together either under the headings of *Teacher-Student /Student-Teacher* interaction or *Student-Student* interaction.

Delicate categories placed under *Interaction with the Data* had many more facets and therefore had to be placed in several subordinate categories. First of all, delicate categories suggested the idea of data that informants had actively worked upon and through this pro-activity vocabulary items had been noticed and hence recalled. In other words, the interaction pattern had been student-data and an element of problematicity was implied. The other delicate categories suggested that the data had presented itself in such a way as to make informants sit up and take notice and therefore recall certain vocabulary

items. In other words, the interaction pattern had been data-student and the overall idea was one of the informant reacting to the data or the saliency of the word itself. Within these two different ways in which the data presented itself, it was possible to identify yet further differences in the delicate categories grouped under each subordinate heading. Delicate categories seemed to refer to the word in isolation or the word within a context in both subordinate categories. Within the category of *Problematic Learning* no further subordinate categories were identified.

It may be easier to trace the steps taken in this process of categorisation by taking an example comment made by an informant and seeing where it ended up in the overall plan of things. Let us take the comment made by informant o about the word *emerge* (shown in the example earlier in the chapter and Appendix 2 Class C):

> *He explained again and again (the teacher)*

As already mentioned this comment was placed in the delicate category ' Teacher Explanation', because it was an example of *Classroom Interaction* it was then placed into the superordinate category with this name. Finally, the interaction pattern was teacher-student so the delicate category was placed under the subordinate category of the same name.

Another example is the comment made by informant j with regard to the word *insane* and shown in Appendix 2 Class C:

> *I'm thinking 'insane' have a different meaning like 'in spite of'*

First of all this comment was placed into the delicate category of 'Formed an Incorrect Hypothesis'. Then it was placed into the superordinate category of *Interaction with the Data*. Finally it was placed alongside other delicate categories in the subordinate category of *Proactive*, as some effort on the part of the learner and a certain amount of problematicity was implied. Within this category it was further categorised under 'Word in Context' as it was apparent that the context of the word had been as important to guessing as the word itself.

A final example is the comment made by informant g about the word *pip* and shown in Appendix 2 Class B :

> *'Pip' is easy to remember...just three words...three spell...*

This comment was placed into the delicate category of 'Characteristics of the Word' and then placed under the superordinate heading of *Interaction with the Data*. Finally, the delicate category was placed into the subordinate category of *Reactive* as it seemed that it was features of the word that arrested the learner's attention rather than any effort on the part of the learner to try and solve the problem of its meaning. Following that it was categorised further into the category of ' Word in Isolation' as the context surrounding the word did not appear to be particularly important to its recall.

4.3.3 Inter-Rater Reliability

When deciding where to allocate reasons a decision had to be made to put

each reason in one category or another.In order to test the reliability of the categories and the validity of researcher allocation, four teachers were asked to rate the more problematic cases, i.e. reasons for retention given by informants that seemed to straddle two or more categories. The exercise given to raters to do is shown in Table 14. Raters were required to place the delicate categories outlined in Table 14 into one of the categories given in Table 15. The resulting decisions made by the raters on where to place the delicate categories are shown in Table 16.

Instructions for Raters

1. Look at the 'delicate' (bottom level) categories in the table below. These categories have been formed from reasons given by learners stating why they recalled certain vocabulary items in a lesson.

2. Now look at the 'superordinate' (top level) categories on the page attached.

3. Try to place each of the 'delicate' categories into one of the 'superordinate' categories on the page attached. Write the number of the category under the word 'allocation' below.

4. Once you have decided which superordinate category the delicate category should be placed into, try to allocate the delicate category to a ' subordinate ' (or second level) category also. Write the letter next to the number under the word 'allocation'.

Problematic Delicate Categories   **Allocation**

[24] Used a dictionary
[13] Wrote the word down
[7] Formulated incorrect hypotheses
[11] Incorrect answer in exercise
[41] Circled/underlined the word
[5] In the exercise but unable to solve
[33] Teacher wrote/drew on w/b
[26/29] Design, typology, layout
[37] Context given in material
[40] Guessed from the sentence
[22] In the materials
[35] Dictionary had many meanings
[17/38] Characteristics of the word
[8] Word not seen before
[34] Couldn't find the meaning
[36] Missed the meaning in class
[10] Association with another word

Table 14: The Instructions and Delicate Categories Given to Raters

Descriptors
Super-ordinate Categories and Sub-ordinate categories

INTERACTION WITH THE DATA

Proactive [Problematicity]
Student-Data

1a. The learner actually does something to the data [text, materials etc] such as solving a problem or looking up the meaning of a word etc. during the lesson

1b. The learner does something to or works on the word within its context (i.e. sentence, paragraph) during the lesson. For example, guessing the meaning of a word from its context, writing it in a sentence etc.

Re-active [Saliency]
Data-Student

2a. The data [text, materials, whiteboard work etc.] is noticed by the learner. A word is made memorable because of the nature of that word. For example, unusual spelling etc.

2b. The data is noticed by the learner. A word within its context (i.e. sentence, paragraph etc) is made memorable because of the nature of the word and its context. For example, the context given in the materials, surrounding pictures etc

PREVIOUS LEARNING / BEYOND THE CLASSROOM

3. A word is recalled because it is already partially learnt.

PROBLEMATIC LEARNING

4. A word is recalled because a learner had difficulty with it in the lesson and so had to work on it outside the classroom.

CLASSROOM INTERACTION

5a. The word was recalled because of the interaction between the class teacher and the learner (T-S)

5b. The word is recalled because of the interaction between the learner and the class teacher. (S-T)

5c. The word was recalled because of the interaction between the learner and other learners. (S-S)

Table 15: The Superordinate and Subordinate Categories in which Delicate Categories were to be Placed by Raters

Problematic Delicate Categories	Allocation					1st Consensus %	Final Consensus %
	Raters				Researcher		
[24] Used a dictionary	1a	1a	1/4 *	2	1b	75%	75%
[13] Wrote the word down	1b	1b	1	2	1b	75%	75%
[7] Formulated incorrect hypotheses	1b	1b	1b	4*	1b	75%	100%
[11] Incorrect answer in exercise	1b	1b	1	4*	1b	75%	100%
[41] Circled/underlined the word	1	1	1	2	1b	75%	75%
[5] In the exercise but unable to do	1b	1b	1b	4*	1b	75%	100%
[33] Teacher wrote/drew on w/b	2b	2	2b	2a /2	2b	100%	100%
[26/29] Design, typology, layout	2b	2b	2/2 b	?	2b	75%	75%
[37] Context given in material	2b	2b	2b	2b	2b	100%	100%
[40] Guessed from the sentence	1b	1b	1/1 b	1	1b	100%	100%
[22] In the materials	1b	2b	2	2	2b	75%	75%
[35] Dictionary had many meanings	1b	1b	1b	4*	1b	75%	100%
[17/38] Characteristics of the word	2a	2a	2a	2a /b	2a	100%	100%
[8] Word not seen before	2a	2	2	1a /b	2a	75%	75%
[34] Couldn't find the meaning	½	2	3	4*	1b	25%	50%
[36] Missed the meaning in class	1b	1b	1b	1b	1b	100%	100%
[10] Association with another word	½	1	1a	1a	1a	75%	75%

*NOTE
Category 4 was found to be too similar to Category 1. Raters had a lot of difficulty differentiating between the two so as a result Category 4 was merged into Category 1 changing the consensus rate to that seen in the final consensus.

Table 16: The Placement by Raters and the Researcher of Delicate Categories (Seen in Table 14) into Superordinate and Subordinate Categories (Seen in Table 15).

Looking at the inter-rater exercise in Table 15 it may be noticed that there is no superordinate category for *Personal Agenda*. This is because there were no problematic delicate categories for the researcher in this category and so it seemed pointless to include it. It was in the interests of the researcher to keep the exercise as short and clear as possible to ensure valid rater feedback.

The delicate categories in the superordinate category, *Problematic Learning*, (listed as number 4 in the exercise), were combined with delicate categories under *Interaction with the Data*, 'Pro-active (Problematicity)' after speaking to raters and looking at their ratings. This decision was made because raters said they found it difficult to separate category number 1 and 4 in their minds and in fact could perceive no difference between them. As a result the researcher decided to merge these two categories and any category marked 4 was then allocated to category 1. This brought the number of superordinate categories down to four rather than five.

With delicate category [34], only one of the raters allocated it to superordinate category 1 (category 4 now part of 1). One rater allocated it to superordinate category 2 and one rater allocated it to superordinate category 3.The last rater could not decide between category 1 and 2, so category 1 was taken as the first choice of that rater and the agreement on category 1 brought to 50%. Prior to setting up the test of inter-rater reliability, the current researcher had decided that if 75% agreement between the raters and the researcher on the allocation of delicate categories to superordinate categories was reached this would be

enough to render that allocation valid in the mind of the researcher. 100% agreement, would of course be more ideal but not always attainable. However, in the case illustrated above, the researcher decided to accept 50% agreement on allocation as the comment made by the informant was suitably vague enough to leave room for many different interpretations of meaning.

Some raters had a tendency to only choose superordinate categories and ignore the subordinate categories. This did not cause too great a problem as it was allocation of these identified problematic delicate categories to superordinate categories that had caused the researcher the most difficulty. Once the superordinate category was decided (in the cases given to raters) it was a much easier task to decide on allocation to subordinate categories.

Overall, consensus between raters (shown in Table 16) on allocation of the 17 categories that had caused the researcher some indecision when allocating into superordinate categories and subordinate categories, was varied. Agreement was 100% for 8 of the 17 delicate categories (numbers 7,11,5, 33, 37,40, 35, 36) after superordinate categories 1 and 4 had been merged. Prior to that there was 100% agreement on only 4 delicate categories. There was a further 75% agreement between raters on 8 of the 17 delicate categories (numbers 24, 13, 41, 26/29, 22, 17/38, 8, 10) and 50% agreement on 1 category (number 34).

The allocation of delicate categories to subordinate categories and then to

superordinate categories was finalised after this exercise. Diagram 1 shows how categories of learners' reasons for recall were divided up into four superordinate categories at the top (with the superordinate category of *Problematic Learning* no longer there) and six subordinate categories below them. All categories, including delicate categories are listed and defined once again with examples in the next section.

Previous Learning/Beyond the Classroom

Personal Agenda/Priorities

Need

Relevance

Classroom Interaction

Teacher/Student

Student/Student

Student/Teacher

Interaction with the Data

Proactive (Problematicity)

Reactive (Word Saliency)

Student - Data

Data - Student

Word + Context	Word

Word + Context	Word
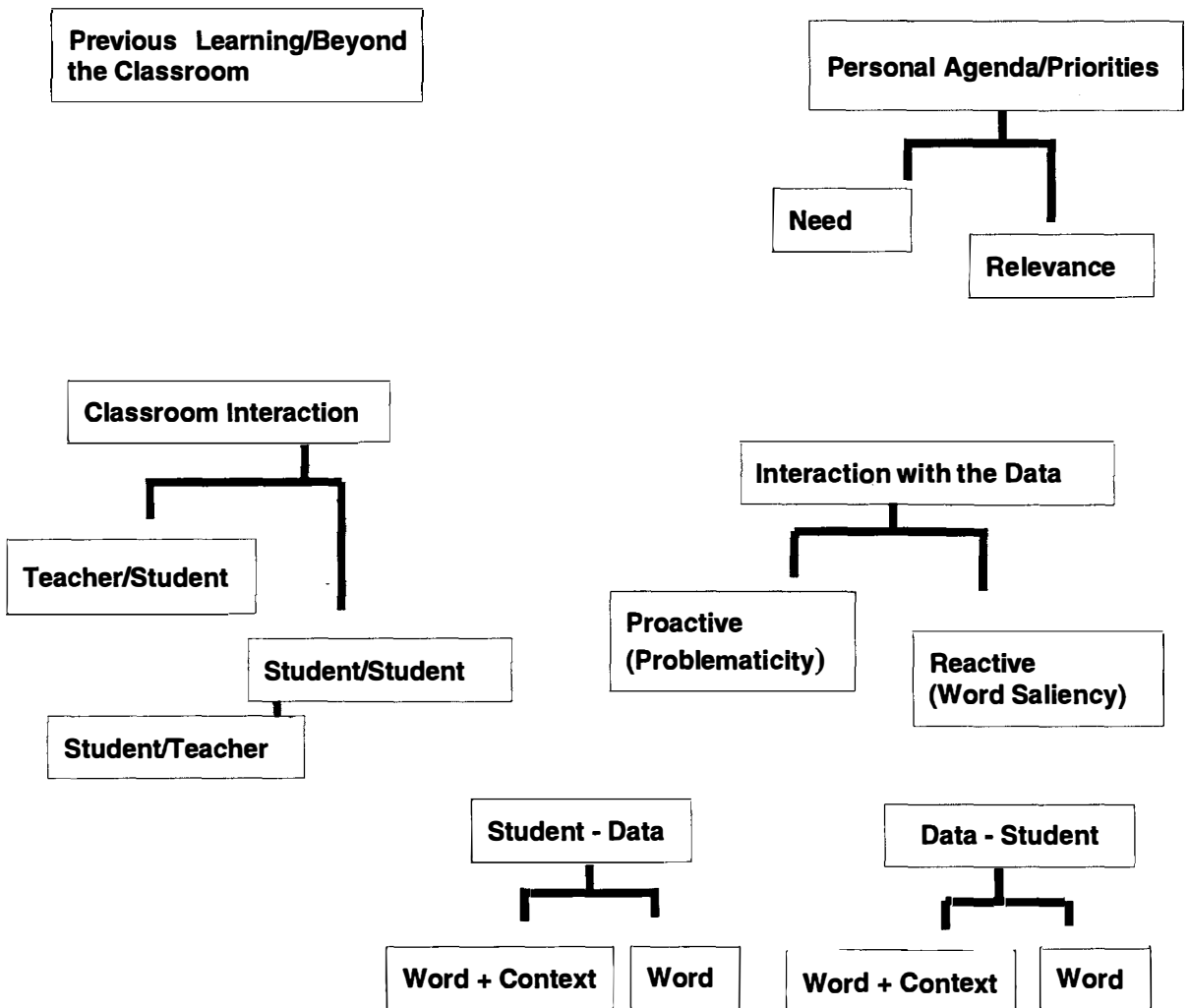
Diagram 1: Superordinate and Subordinate Categories of Reasons for Recall given by Learners

To show the overall picture of the superordinate categories, the subordinate categories within them and the delicate categories within them, the following breakdown is provided. Definitions and explanations of the categories, with example comments at delicate category level, are also included. The number in brackets next to each delicate category is the number of that particular delicate category and is included for cross-referencing purposes.

4.3.4 The Superordinate Categories

Category 1

Previous Learning / Beyond the Classroom

Informant comments placed in this category have in common that they all talk about learning that took place outside or prior to the lesson in question. For example, the situation where an informant claims to already know other forms of a word or the form but not the meaning of a word.

Subordinate Categories
Nil.

Delicate Categories

Category	Definition
Familiar with word meaning.[25]	Informant had been exposed to the word prior to the lesson .Knowledge of the word could range from vague to competent user. *e.g. I hear yesterday from the conversation in class ...but I don't know how to spell it.*
Knew other forms of the word [14]	The verb and noun may already have been known by the informant but the adjective may not have been. *e.g. I already knew the noun and the verb so I just had to change the ..[inaudible]*
Same/sim word own lang.[28]	Informant has the same or a similar word in their language e.g. same spelling but different pronunciation, same spelling but different meaning *e.g. In my country some director start... they say action.*
Vague knowledge of word-no meaning [32]	Informant has seen/heard the word prior to the lesson but does not know the meaning *e.g. When I was staying with ..family the host mother's daughter always told me 'dowdy'.*

Category 2

Personal Agenda/Priorities

Reasons given by informants and placed in this category all shared the characteristics of being part of the personal agenda of the learner. In other words, the learner had taken control of his /her own learning and decided which items of vocabulary were valuable to his/her linguistic repertoire. This decision on the part of the learner may have run counter to the aims of the teacher or may have been in line with the aims of the teacher.

Subordinate Categories

The personal agenda of the learners' seemed to be split into those words which they felt were necessary to their linguistic repertoire and those that were not necessary but very relevant.

Delicate Categories

Need

Category	Definition
Conscious decision to retain [23]	Informant decided the word was worth retaining as it was useful or needed in their repertoire. e.g....*and I try to remember.*

Relevance

Category	Definition
Familiar with what word is describing.[12]	Informant can relate to the idea or concept the word is describing. This category comes close to 'Association with experience' but the latter sees the informant making the association with some aspect of their life whereas with this category the association is made for them either by the teacher or the material used. *e.g. Actually at that time I want/need a coffee.*
Association with own experience [9]	The word triggers an association with something in the informant's life. For example, *volcano* is linked by one informant to the destruction caused by Krakatoa in his country. Another e.g. is: *Usually I see that one. That's meaning can remember me to bad experience.*
Interest [30]	Informant found the word interesting either because of its form or its meaning. *e.g. Maybe the story is interesting...*

Category 3

Classroom Interaction

All the informants' comments which give interaction in the lesson as the reason why vocabulary items were made noticeable are listed under this category.

Subordinate Categories

Classroom interaction seemed to be of two types: the teacher interacting with the student or vice versa and the students interacting with each other during the lesson.

Delicate Categories

Teacher-Student Student-Teacher

Category	Definition
Lot of practice [27]	Informant was given many opportunities to say, listen to, read or write the new word. e.g. *All the practice.This one is a lot of work ...a lot of time to use this one.*
Teacher repetition [21]	The teacher repeated the word many times. e.g. *[The teacher] said it many times.*
Teacher explanation [1]	The teacher explained the word a number of times throughout the lesson [to the class]. *e.g. He explained again and again.*
Context given by teacher [6]	Informant remembers the story, description or metaphor given by the teacher to illustrate the meaning of the word. e.g....*and then from the story that [the teacher] told us this morning.*
Demo, gesture, mime [16]	Informant remembers the word because it was accompanied by a gesture, a mime or a demonstration by either the teacher or another student. *e.g. because you know [the teacher] he gesture quite...[laughs]. I remember his appearance.*

T led s to correct guess [19]	This is more than teacher elicitation. The teacher gives very overt hints to informants in order to get the correct response. Unlike 'demo, gesture' the hints are verbal. e.g. ..because [the teacher] said three of friends have these..and I looked at them .At first I had no idea...
Incorrect response to teacher elicitation [15]	Informant gives a wrong answer to teacher or wrong information in response to direct elicitation by the teacher. *e.g. because I made a mistake...[the teacher] asked me...she asked me why...*
Correct response to teacher elicitation [4]	Informant gives a right answer or correct information in response to direct elicitation by the teacher. e.g. *In the class [the teacher] said another word give me. I found another word- 'appear'.*
Asked the teacher [39]	Informant asked the teacher to answer a question or provide information. *e.g. If I didn't know what this mean I ask the teacher.*

Student-Student

Category	Definition
Other ss responses [2,3]	An informant other than the informant himself/ herself answered a question or offered information in response to a direct elicitation by the teacher or volunteered information to the class. e.g. *because k said 'appear' . After all the students give information about using other word 'appear'*

Discussed in groups /pairs [31]	Informant had an opportunity to negotiate meaning and pronunciation of the word with one or more class mates. e.g. *First I asked my friends . d looked this word dictionary and show me.*

Category 4

Interaction with the Data

Vocabulary was made noticeable and memorable for informants through interaction with the data provided in the lesson. Data can be defined as text, whiteboard work, exercises etc.

Subordinate Categories

Where the informant actually did something to the data such as solving a problem or looking up the meaning of a word in the dictionary these reasons were placed under the subordinate category of *Pro-active [Problematicity]*. Interaction was student to data. Where the data was seen to contain certain characteristics that made a particular vocabulary item memorable for informants or noticeable in some way, the subordinate category was called *Re-active [Saliency]*. In other words, the informant reacted to the data rather than actually working upon it and the interaction was data to student.

Of course there is overlap between the two categories but reasons were allocated according to their weighting or main focus. For example, the word *understudy* received the following comment:

I can guess about study this word but it not concern to study

In this instance, the comment was allocated to the delicate category of ' Formulated Incorrect Hypotheses' which was then allocated to *Interaction with the Data /Proactive* rather than the delicate category of ' Characteristics of the Word' and then *Interaction with the Data /Reactive. Pro-activity* or *Re-activity* by the student can be to the word itself in isolation or to the word in a particular context thus further categories were created within these sub-categories.

Delicate Categories

Proactive [Problematicity]
Student - Data

Word

Category	Definition
Association with another word [10]	Informant links the word with another word already known to them. e.g. *I remember ...'abnormal' so 'crazy 'crazy'....I am familiar with 'crazy'.*

Word+Context

Category	Definition
In the ex. but unable to solve [5]	The informant was unable to complete a task or an exercise because they needed a word. The word supplied later. e.g...*because I couldn't catch the sentence on the tape 'cause that was new word'.*
Circled/underlined [41]	Informant marked the word in the text or in their own notes to make it stand out from the surrounding words. e.g. *I circled it.*
Incorrect answer in exercise [11]	Informant saw they had made a mistake in an exercise or written task during feedback. e.g. *Yes...I got this word wrong.*
Formulated incorrect hypotheses [7]	Informant made a guess or series of guesses about the meaning of a word which proved to be incorrect. These guesses may not have been verbalised and were made before any feedback was given. e.g. ..*so at first I think that is like this but there isn't.*

Formulated correct hypotheses [18]	Informant made a guess or series of guesses about the meaning of a word which proved to be correct. These guesses may not have been verbalised and were made before any feedback was given. e.g. ..*because I guessed this is a branch.*
Wrote the word down [13]	Informant copied the word from the whiteboard or the material given. e.g. ..*because I put it in the list that I wrote to practise.*
Used a dictionary [24]	Informant was prevented from completing a task or exercise because a vocabulary item was unknown so they used a dictionary to find out the meaning. e.g....*I find from dictionary. Open dictionary and remember.*
Missed the meaning in class [36]	Informant initially missed feedback on a word in class but eventually found the meaning of the word. e.g. *Teacher doesn't give the sure meanings or I can't listening...If I go ...back home I find in dictionary.*
Couldn't find the meaning [34]	Informant attempted to find the meaning of a word via a resource but was unsuccessful initially. e.g. *Maybe before I researched about this word but 'pip' didn't write in dictionary*
Dictionary had many meanings [35]	Informant used a dictionary but was confronted with aconfusing number of meanings for the same word. e.g. *In the dictionary lots of different meanings*
Guessed from the sentence [40]	Informant guessed the meaning [either correctly or incorrectly] of the word by using clues offered by the surrounding sentence. e.g. *That is also...I guess from the sentence...*

Reactive [Saliency]
Data-Student

Word

Category	Definition
Word not seen before [8]	Informant claims to have seen the word for the very first time. It implies a feeling of surprise or interest in the word perhaps because of word characteristics. e.g. *I have never seen that before. It's not often you see that word.*
Characteristics of the word[17]	Informant found the form or meaning of the wordinteresting , unusual or noticeable. e.g. *Pip is easy to remember...just 3 words...3 spell..* *We know exactly the meaning...not like* [inaudible] *...put in this sentence have different meaning.*

Word+ Context

Category	Definition
Examples appeared frequently [20]	For example the word *stem* was taught and throughout the lesson words beginning with *in, un,* etc were introduced. e.g. *So many stems in the lesson*
Context given in the material [37]	Informant sees the context that the word appeared in as memorable. The context was provided in the material and may be extraordinary in some way. e.g. *I remember because maybe he's the unlucky person. Sometime I remember the story*

In the materials [22]	The word appeared in the listening or reading texts and/or the exercises and written tasks. *e.g. From the exercise...probable or improbable. From the reading just now.*
Teacher wrote/drew on whiteboard [33]	The teacher wrote the word on the whiteboard or drew pictures to illustrate the meaning of the word. *e.g. Teacher give me the kind of marsupial...on the whiteboard.*
Design, Typology, Layout [26/29]	Informant noticed the word because of the typeface or the design of the text or illustrations surrounding it. The position of the word in the text may have caused the word to be noticed e.g. primacy e.g. *...because it is in the first section I think...*

4.3.5 Constraints on the Method of Data Analysis

The qualitative approach to data collection taken in the research meant that analysis involved taking all the comments and reasons for recall of vocabulary items given by learners both in the written questionnaires and the interviews and trying to arrange it into larger, more manageable categories in order to show any trends in thought. When trying to trace patterns in the reasons given by informants for recall of new words, the first level of analysis was the formation of delicate categories in which each category of reasons was almost in the words of the informant. However, even with these delicate categories, the researcher was required to make judgements about where to

place the reasons given by informants. These decisions, despite inter-rater checking, were still open to subjective bias and the researcher's preconceptions, as would be the case with any categorisation of other people's words.

Inter-rater reliability was checked along the way but agreement was not 100% in every case. It was decided that an agreement rate of 75% or more amongst raters with regard to placement of reasons for recall given by informants into categories, would be taken as an indication that placement was generally agreed upon by the researcher and others in the profession. In other words, if at least 3 out of the 4 raters agreed with the researcher on the placement of reasons into a certain category, the category and the reasons for retention placed within it were seen as being reliable.

4.3.6 Trends in the Reasons for Recall Given by Learners

Having established all the different categories of reason offered by informants as explanations for why they recalled certain items of vocabulary, the researcher decided to find out which reasons were given the most often by learners in the sample. Once all the delicate categories had been placed under super-ordinate categories it was possible to look at the percentage of the total responses that fell into each category by dividing the number of responses in

each super-ordinate and subordinate category by the total number of reasons

for recall given by informants in the sample overall. The total number of

responses was 104.Trends in reasons given for recall can be seen in Diagram

2.

PREVIOUS LEARNING/ BEYOND THE CLASSROOM

Familiar with word + meaning 5
Same/Sim. word own lang. 2
Vague knowledge of word
 but not meaning 2

Total=9   **(9%)**

PERSONAL AGENDA/ PRIORITIES

NEED   **RELEVANCE**

Conscious decision   Familiar with/can
to retain 2   relate to 2
                         Association with
                         own exp. 3
                         Interest   2

Sub-total=2   Sub-total=7
(2%)   (7%)

Total= 9   (9%)

CLASSROOM INTERACTION

T-S/S-T   S-S

INTERACTION WITH THE DATA

PROACTIVE   **REACTIVE**

WORD   **WORD**   **WORD**   **WORD**
+CONTEXT   **+CONTEXT**

Lot of prac. 2	Other ss resps 5	In ex. but unable	Association with	E.g.s related to	Word not seen
Teacher rep.0	Discussed in	to solve 2	another word 4	word are frequent	before 3
Teacher explan. 11	pairs/groups 4	Circled/underlined		0	Characteristics
Context by T. 3		0		Context in mats	of word 6
Demo/mime 0	Sub-total=9	Incorrect ans in ex	Sub-total=4 4		
Teacher led ss		1		In the materials 7	Sub-total=9
to correct ans. 0		Form. incorrect		T wrote/drew on	
Incorrect resp. to		hypotheses 9		w/b 4	
T elicit. 1		Form. correct		Primacy 4	
Correct resp. to		hypotheses 0		design/layout 0	
T elicit . 1		Wrote word down			
Asked the T. 1		0		Sub-total=19	
		Used dictionary 11			
Sub-total=19		Missed meaning in			
		class 0			
(18%)	(9%)	Couldn't find mean.			
		2			
		Dictionary many			
		meanings 0			
		Guessed meaning			
		from sentence 1			
		Sub-total= 26			
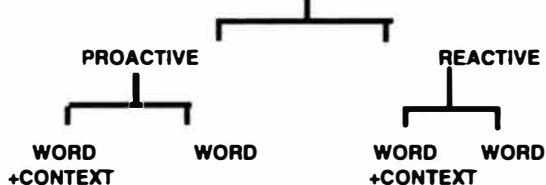
(27%)   (29%)

Total=28   **(27%)**   Total=58   **(56%)**

TOTAL=104 RESPONSES

Diagram 2: The Number of Responses Allocated to Each Category

Looking at Diagram 2 we can see that in terms of percentages, reasons added up to 101%. This was due to rounding up of the percentages. The largest category of reasons given for recall was *Interaction with the Data* at 56% or 58 out of the 104 reasons given. Within the *Interaction with the Data* category the *Pro-active* category of reasons was the biggest with 29% of the reasons given. The *Reactive* category had 27% of the reasons. Reasons pertaining to ' Dictionary Use' were 10% and ' Formation of Incorrect Hypotheses' 9%.

The *Re-active* categories of 'Word Characteristics' had 6% of the reasons and 'In the Materials' 7%. Reasons falling into these categories were mentioned the most often by informants. *Classroom Interaction* was the next largest category with 27% of the responses. *Teacher to Student, Student to Teacher* interaction [18%] was given as a reason for recall more often than *Student to Student* interaction although the latter was still given 9% of the time. Within the *Teacher to Student/Student to Teacher* category reasons relating to 'Teacher Explanation' (10%) and 'Teacher Context' (3%) were given the most often with 13% of the responses. *Previous Learning/ Beyond the Classroom* only accounted for 9% of the responses. *Personal Agenda/ Priorities* accounted for 9% of the responses with *Relevance* and more particularly ' Association with Own Experience' forming the largest portion of these responses with 3%.

These results showed trends across the sample of words recalled by all of

the informants. However, they did not show patterns of reasons for recall for individual learners. The next section looks at this in more detail.

4.3.7 Profiles of Individual Informants

In order to check that one reason was not given by one informant the majority of the time and other reasons barely mentioned by informants thus skewing the results presented in Diagram 2, it was decided to investigate each informant and see what reasons they offered for recall of vocabulary items. To achieve this, the number of delicate categories in each superordinate category was divided by the number of delicate categories applicable to each informant. The results of this procedure are shown in Table 17.

	Informant	a	b	c	d	e	f	g	h
Previous Learning	No of Responses	1	1	0	5	0	0	0	1
Personal Agenda	No of Responses	1	1	0	0	2	0	1	0
Classroom Interaction	No of Responses	0	1	2	1	5	2	0	0
Interaction with the Data	No of Responses	6	5	7	0	4	2	3	10

	Informant	i	j	k	l	m	n	o	p
Previous Learning	No of Responses	1	0	0	0	0	0	0	0
Personal Agenda	No of Responses	0	1	0	0	1	0	0	0

Classroom Interaction	No of Responses	3	2	1	0	1	0	1	0
Interaction with the Data	No of Responses	1	4	0	1	0	1	0	1

	Informant	q	r	s	t	u	v	w	x
Previous Learning	No of Responses	0	0	0	0	0	0	0	0
Personal Agenda	No of Responses	0	0	0	1	0	0	1	0
Classroom Interaction	No of Response	1	0	0	2	2	3	2	0
Interaction with the Data	No of Responses	0	1	0	2	6	0	2	1

Table 17: Categories of Reasons for Recall of Vocabulary Given by Individual Informants

Table 17 shows the types of responses given by individual informants regarding the recall of certain vocabulary items and the superordinate categories they fell into. It is clear from the table that informants gave a variety of types of reasons for recall and with such small numbers it is difficult to say that individuals gave more of one kind of reason than another. However, if we look at the data in order to corroborate the trends established earlier in the reasons for recall, we can see that a large proportion of the informants gave reasons that fell into the category of *Interaction with the Data*. In fact, 50% of the informants had *Interaction with the Data* type responses as their main reason for recall. A further 21% of the informants had *Classroom Interaction*

as their main category of response type followed by *Previous Learning/ Beyond the Classroom* (4% of informants) and *Personal Agenda* (0% of informants).

The remainder of informants (25%) gave reasons that were scattered throughout either two superordinate categories equally or three superordinate categories equally. The breakdown is 13% of informants gave reasons which fell into both *Classroom Interaction* and *Interaction with the Data* equally, 4% gave reasons which fell into *Personal Agenda* and *Classroom Interaction* equally, 4% gave reasons which fell into *Personal Agenda, Classroom Interaction* and *Interaction with the Data* equally and 4% (one informant) gave no reasons at all.

The most common reason for recall on the part of individuals then was *Interaction with the Data*, followed by *Classroom Interaction.* Of course, these individual profiles cumulatively mirror the results found when looking at the type of reason given most across the whole sample of informants. It was important to establish that earlier results were not hiding individual differences and this has been shown above. Another important finding from this exercise was that each individual had used a variety of different ways to recall new vocabulary items and that no informant claimed to have recalled words through one type of behaviour or event solely (see Appendix 2).

4.3.8 The Interconnectedness of the Reasons Given for Recall

Although reasons given for recall of new vocabulary items were scored under headings as subordinate categories and then superordinate categories, this was for ease of analysis and a desire to portray any trends present in the data. In fact, many of the reasons given by informants for recall of vocabulary could be placed into several categories depending upon the interpretation and the interpreter(hence the importance of inter-rater moderation). The interlinkedness of all the variables leading to recall can be seen from comments such as the following with regard to the word *insane*:

I don't know but I still remember...because crazy...I thought must be 'sane'.He says its opposite from this so I change... (Appendix 2 Class C informant r)

In this instance, this comment was scored under *Interaction with the Data* as it implied a lot of *proactivity* with the data on the part of the learner but *Classroom Interaction* was also a contributing factor to recall.

Another example was the comment about the word *understudy:*

I haven't looked at a dictionary. Because ...my teacher has given that word and she tried to explain and fortunately I can remember that word

(Appendix 2 Class D informant w) .

This was recorded under the delicate category of 'Teacher explanation'. However, there could be a case for suggesting that this reason also borders on the category of 'Missed Meaning in Class' or 'Incorrect Hypotheses' formulated by informants.

This overlap emphasised the fact that the classroom environment and each lesson that took place within it, was not easily divided into a series of completely discrete behaviours. Every event impacted upon every other event and what may have appeared to be one particular event at work as regards recall and noticing, was often a culmination of many events with perhaps
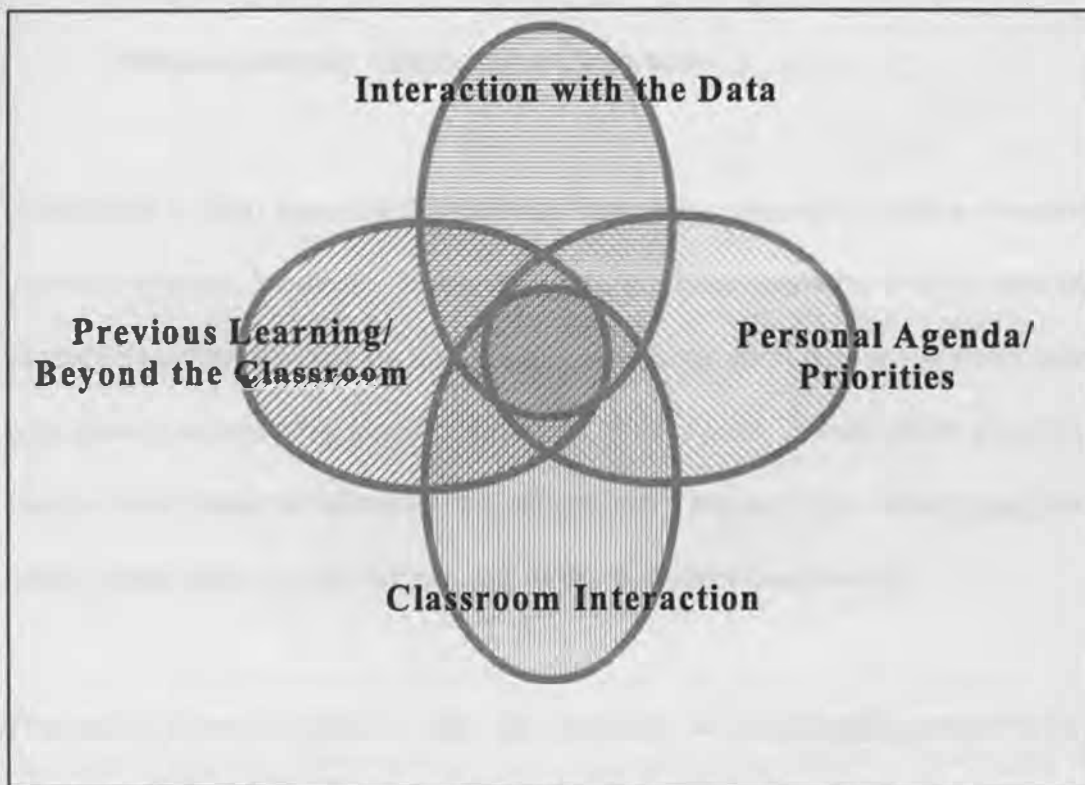
Figure 5: The Interconnectedness of the Reasons for Recall of Vocabulary Given by Informants

slightly more emphasis on one.

This idea of the interconnectedness of all the categories of reason offered by learners is illustrated in Figure 5.

recall of vocabulary offered by learners. In other words, each oval

corresponds to one of the four superordinate categories identified earlier in

the chapter:

Interaction with the Data

Personal Agenda / Priorities

Classroom Interaction

Previous Learning / Beyond the Classroom

Contained in each oval are the delicate categories consisting of the reasons

given by learners for recall of new vocabulary. Those reasons which could be

allocated to different delicate categories depending upon where the emphasis

was placed, occupy the overlapping parts of the ovals. Those which could be

categorised under two headings are outermost in the overlap, while those that

could reasonably occupy all four are at the centre of the overlap.

The most important point is that the ovals are all overlapping and sharing

boundaries which highlights the fact that all of the events in the lesson reported

to have influenced learner recall of vocabulary, are interconnected rather than

isolated events. All of the lesson events and pre-lesson events culminate and

interact with each other to bring about a single case of noticing or recall.

Whilst raters allocated delicate categories of reasons given by learners for

recall, to the categories they felt they fitted into best, this was often a matter of

weighing up each comment and deciding after much reasoning which of two or

three categories it might best fit into. Discrete categories help the researcher

help the reader to digest information received but the aim of Diagram 3 is to

emphasise the overlapping and interconnecting nature of these categories and indeed the idea that events happening in a classroom all impact upon each other in some way.

4.4 The Discourse of the Classroom Interaction Analysed

The focus of the analysis and findings so far has been on the observations and recollections made by the informants. This proved very fruitful and learners were able to reflect and report in some detail about classroom events surrounding the noticing of certain vocabulary items. Another source of data at the disposal of the researcher was the video recordings made of each lesson. This observable data could be used in two ways; firstly to check what was said by informants with regard to reasons that were given to explain recall in the *Interaction with the Data* category and secondly as a further aid to answering the research question: *Why do learners recall the vocabulary that they do from lessons?* Furthermore, as 27% of the reasons given by learners for recall of new vocabulary were related to *Classroom Interaction* and it was one of the few observable superordinate categories, it seemed appropriate to investigate this area more closely in the hope of making a few tentative hypotheses based on this observable data.

Slimani (1988) audio-taped and transcribed the lessons she observed in order to trace items of language claimed by informants to be *uptaken*. The same process was repeated in this study. Every vocabulary item recalled by informants

was traced and identified, first in the video recordings (noting any distinguishable paralinguistic or other behaviour surrounding the appearance of a vocabulary item) and then in the transcripts made of the video recordings (see Appendix 3), the lessons and the materials used in the lessons (see Appendix 5). This was done for two main reasons. The first was to check and confirm what informants had said about events surrounding the appearance of a particular recalled vocabulary item. The second was to examine the discourse of the lesson and see if any links could be made between particular discoursal features (i.e. 'mentioning', 'repetition', 'focus', 'turn-taking' and 'introduction' and 'reintroduction' of words), features of classroom interaction and the recall and perhaps retention of vocabulary items.

The first part of this section deals with the confirmation of data given by informants about classroom interaction. Each reason given by learners for recall of new words is located in the transcripts of the lessons and what learners said confirmed or not confirmed.

The second part reports on the investigation of variables present in the discourse of the lesson and observed by the researcher, and any links made with the recall of new vocabulary. These variables were oral / aural repetition, focus and turn-taking on new words, introducing / reintroducing words, and learner participation in the interaction of the lesson. Getting this information involved close analysis of the transcripts and materials from the lesson by the researcher.

The results of the analysis are explained in terms of classes initially, with reference to each of the variables listed above. This was done in order to see if particular classes experienced more of one variable than another class and thus compare the amounts of recall and links with the variables across classes. After the breakdown of findings for individual classes, the researcher changed the focus by looking at the results of the study as a whole. All the words recalled (across all the classes) were placed into groups according to the number of learners that recalled each word (25% to 49%, 50% to 74% and 75% to 100%) and the amount of the variables present (given above) measured for each word.

4.4.1 Confirmation of Data Given by Informants Linked to the Category of Classroom Interaction

Reasons given by informants for retention of vocabulary items which fell into the *Classroom Interaction* category were traced and all were confirmed either in the transcripts, the materials or the video recording. In other words, what informants said had happened actually had happened. There were one or two occasions where conversation was inaudible but on the whole each item was traced easily.

Upon closer examination informants in two instances stated that they had received information from the teacher when, in fact, it appeared to be from another student. This, in fact, would bring the total number of student-student interactions which were responsible for a 'new' vocabulary item being noticed or recalled to 11% rather than 9% and the number of reasons which fell into the

category of teacher explanation to 8% from 10%). This was the only difference between claims by informants and what was observed by the researcher.

4.4.2 Links Between Features of the Classroom Discourse, Interaction, Input and the Recall of Vocabulary

Mentioning

While collecting data from informants, it became apparent that some of the vocabulary items recalled had come up in the lesson via the discourse and others had not. As a result, a count was done to see how many of the vocabulary items recalled by 25% or more of the learners in the sample had been 'mentioned' or articulated verbally either by the teacher, a student or someone on an audio / video tape during the lesson. This could take the form of the teacher reading text aloud or directing attention away from a word, e.g. *Just leave 'foyer' out.(See Appendix 3 Class D turn 116).* It could be a student saying the word once during the lesson or a word that came up once in a listening exercise on audio/ video tape.

Once the word had been mentioned more than once the subsequent mentions were labelled 'repetition' and counted separately. In other words, vocabulary items were only termed mentioned the first time that they were articulated by the teacher, the student or the person on the audio/ video tape. Subsequent articulations were termed 'repetition' and dealt with under another heading.

Table 18 shows the vocabulary items that were recalled by 25% or more of informants and mentioned by the teacher or the audio/ video tape (TM) or the

students (SM) during the lesson. If the vocabulary item was not mentioned or articulated verbally by the teacher, the audio / video tape or the students at all it is indicated as NM.

Class	Vocabulary Item	Fraction of the Class Sample that Recalled it	Teacher or Audio-tape Mention TM	Student Mention SM	Vocabulary Items Not Mentioned NM
A	butt ogle cue aggressive hose trigger merely dowdy resent	5/5 4/5 4/5 3/5 3/5 3/5 3/5 3/5 2/5	TM TM TM TM TM TM TM TM TM		
Total	9		9	0	0
B	pip predator pest axe fin plague(s) niche(s)	4/4 3/4 3/4 2/4 2/4 1/4 1/4	TM TM TM TM	SM SM	 NM
Total	7		4	2	1
C	emerge(d) glance insane	6/10 3/10 3/10	 TM	SM SM	
Total	3		1	2	0
D	understudy foyer conjurer monologue lyrics	5/5 5/5 3/5 2/5 2/5	TM TM TM	 SM	 NM
Total	5		3	1	1
		Total %	17 71%	5 21%	2 8%

TOTAL WORDS = 24
TOTAL MENTIONS = 22
TM = 18 (75%)
SM = 4 (17%)
NM = 2 (8%)

KEY

Y = YES

Table 18: Vocabulary Items that were 'Mentioned' and Recalled by 25% or More of Informants

From Table 18 it can be seen that only 2 of the 24 words (8%) recalled by 25% or more of the learners were not mentioned during the lesson. Most of the words (22 out of 24) were mentioned at some point. 17 out of 24 words, or 71%, were mentioned by the teacher or on the audio / video tape during the lesson. 5 out of the 24 words, or 21%, were mentioned by the students. These results seem to indicate that verbal articulation of vocabulary items at some point during the lesson is an aid to promoting learner uniformity of recall and retention of new words. However, there will always be individual words that do not comply with this observation, such as the two recalled words *monologue* and *fin* which were not mentioned at all and yet were made noticeable and hence memorable for the learners.

The results seem to show that student mentions were not as important for uniform recall as teacher mentions or mentions by other people on audio/ video tapes as the class that recalled the greatest amount of vocabulary uniformly had 0 student mentions but 9 teacher mentions. However, it should be remembered that the lessons observed were largely teacher- fronted and therefore did not give students as many opportunities to 'mention' words as they might have had in a group work situation (see Appendix 4 for interaction patterns within lessons). With more group work it would have been possible to see if words only mentioned by students were recalled as often.

As stated earlier, once a word had been mentioned more than once it was considered repeated by the researcher. The next section looks at links between repetition of words and recall.

Oral /Aural Repetition

'Repetition' is defined in this study as the occasion when either the teacher, the audio/ video tape or the student says the vocabulary item more than once without elaborating upon meaning or inviting student attention by asking questions about the word or doing any of the things listed in the next section under 'focus'. 'Repetition' often involves the teacher or student reading aloud, echoing correct answers and doing oral drills. As soon as the word receives more attention, it is termed ' repeated and focused upon'. This is dealt with in the next section.

The excerpt below has been analysed in terms of 'mentions' and 'repetitions'. There is one example of Teacher Mention (TM) of the recalled words *ogle, dowdy, hose* and *porch* and one example of Teacher Repetition (TR) for each. There is also one example of Student Repetition (SR) for each word.

	TM	**TM**	**TM**	**TM**

T: *...The ones on the back.... are 'ogle', 'dowdy', 'hose' and 'porch'. That ...They're the words in*

TR

the first reading. So I'll say them again. 'Ogle'.

SR
S: *Ogle*
TR
T: *Dowdy*
SR
S; *Dowdy*
TR
T: *Hose*
SR
S: *Hose*
TR
T: *And porch*
SR
S: *Porch*

(See Appendix 3 Class A turns 7-14)

It proved to be very difficult to count the words that had been repeated amongst the recalled words because repetition tended in a lot of cases to be the first stage in doing more work on the word such as talking about it, testing it and so on. So with this in mind, the current researcher decided initially to count only those words that had been repeated and nothing else under the category of repetition and leave those that had been repeated and the subject of a lot more attention such as questions, testing, discussion etc to a later count. This way, artificially or not, vocabulary items were only ever included in one category.

Table 19 shows the vocabulary items recalled by 25% or more of informants and the number of times it was repeated either by the teacher [TR], the audio / video tape [ATR] or the student [SR]. It also shows the fraction of the sample that recalled each vocabulary item. Repetition includes inflected and uninflected forms.

Class	Vocabulary Item	Fraction of the Class Sample that Recalled It	Teacher/Audio Tape Repetition TR / ATR	Student Repetition SR
A	butt	5/5	2	0
	ogle	4/5	4	1
	cue	4/5	2	2
	hose	3/5	6	1
	trigger	3/5	4	1
	merely	3/5	0	0
	dowdy	3/5	5	2
	aggressive	3/5	5	0
	resent	2/5	1	0
Total	9		29	7
B	pip	4/4	0	2
	predator	3/4	2	0
	pest	3/4	7	0
	axe	2/4	0	0
	fin	2/4	0	0
	niche(s)	1/4	0	0
	plague(s)	1/4	4	0
Total	7		13	2
C	emerge(d)	6/10	6	0
	glance	3/10	0	0
	insane	3/10	2	1
Total	3		8	1
D	understudy	5/5	4	0
	foyer	5/5	2	1
	conjurer	3/5	5	1
	monologue	2/5	0	0
	lyrics	2/5	1	0
Total	5		12	2
Grand Total	24		62	12
Total Repetitions			74	

% of Vocabulary Items Recalled by 25% or More of Informants that were Repeated = 75%

Class A = 36 repetitions and 9 words recalled by 25% or more of Informants
Class B = 15 repetitions and 7 words recalled by 25% or more of Informants
Class C = 9 repetitions and 3 words recalled by 25% or more of Informants
Class D = 14 repetitions and 5 words recalled by 25% or more of Informants

Table 19: Oral/Aural Repetition of Vocabulary Items Recalled by 25% or More of Informants

Looking at Table 19 we can see that the words *merely, axe, fin, niches, glance* and *monologue* were not repeated throughout the lesson. This amounts to 6 out of the total 24 words recalled by 25% or more of the learners in the sample (or 25%) not being repeated throughout the lesson. In contrast to this, 18 of the 24 words (or 75%) were repeated throughout the lesson either by the teacher, the audio tape or the students.

Class A with the most vocabulary items recalled uniformly (9 words) experienced the most repetition (36 repetitions or 4 repetitions per word). Class B with seven words recalled had 15 repetitions or 2.14 repetitions per word. Class D with 14 repetitions or 2.8 repetitions per word had only five words recalled. Class C had the least words recalled uniformly (3), the least amount of repetition cumulatively (9 repetitions) and yet had on average 3 repetitions per word, more than Class A. However, the averages were skewed in this case by the large number of repetitions (6) on one particular word (*emerge*). Looking at these figures, more repetition does seem to indicate more recall of vocabulary at the top end of the scale but the trend does not continue down the scale.

There were also anomalies when looking at individual words. For example, the word *butt* which was recalled by 100% of the learners in the sample but only repeated twice and the word *pip,* recalled by 100% of learners in the sample but only repeated twice by a student. Other words like *pest* were only recalled by 75% of the learners and yet repeated seven times.

As stated earlier in the chapter it was sometimes difficult to separate words which were repeated and nothing more, from words which were repeated and became the centre of attention with either the teacher or the students. In the end the researcher decided to call those words which received more than just repetition, 'repetition and focus' or in cases where the word was not repeated but received a lot of attention just 'focus'. Words coming under this heading are discussed in the next section.

Focusing

The term 'focusing ' builds upon the ideas of 'topicalising' [Slimani, 1977] or 'noticing' [Schmidt, 1990] and is defined here as:

1. Attention is explicitly directed to the word in the text or on the whiteboard either by the teacher or a student.

    e.g. T: *Have a look at the first word...first sentence..*

    (Appendix 3 Class D turn 1)

2. Elicitations are made about the meaning of the word either by the teacher or the student.

    e.g. T: *So what is the meaning of the word 'conjurer'?*

    (Appendix 3 Class D turn 19)

3. Elicitations are made by the teacher or the student which indirectly relate to the vocabulary item.

    e.g. T: *What have you got after 'singer'?*

    (Appendix 3 Class D turn 1)

4. A sentence is given [usually by the teacher] without the item of vocabulary and learners are required to complete it. For example, 'cueing' as defined by Slimani.

      e.g.   T: *Yes I ...... it.*

              S: *Yes I liked it.*

5. The word is defined or meaning is given in some way by the teacher (or the student) or definitions are expanded upon and more context given.

      e.g.   T: *He's watering his lawn ...have you got the picture?...and the attractive girl walks past so he gives...he watches her right? So 'to ogle' is to stare at something..*

           (Appendix 3 Class A turn 31)

6. Explicit requests for more information about a vocabulary item by the teacher or the student.

      e.g.   T: *Offensive...yes..but how are they being offensive?*

           (Appendix 3 Class A turn 270)

7. Implicit requests for information about a vocabulary item by the teacher.

      e.g.   T: *Others become loud and aggressive attacking people...*

             S: *Ru...rude?*

             S: *Offensive.*

             T: *Offensive... that's part of it.*

           (Appendix 3 Class A turns 267-270)

8. The teacher or student gives a correct answer to an elicitation.

      e.g.   T: *What do you think an understudy might be?*

             S: *A stand-in*

             T: 'A stand-in ...yes.'

           (Appendix 3 Class D turn 48)

9. Information about a word or responses to elicitations are offered by a student.

> e.g. S: *Emergency. There is a ...no?* [laughs and looks at the teacher]
>
> T: *Good thinking but not really.*
>
> S: *Included?*
>
> (Appendix 3 Class C turns 106-108)

First of all, each vocabulary item recalled by 25% or more of informants straight after the lesson was searched for in the transcript in order to ascertain which recalled items had been focused upon and which had not been focused upon during the lesson. As mentioned earlier, this was not as easy as it may sound due to the fact that a lot of the vocabulary items that had been focused upon had also been repeated. To try and overcome this difficulty it was decided to list those words that had been repeated and focused upon separately to those that had only been focused upon (mentions not included in focus).Within each category, initiation by the teacher or the student would be indicated. An example analysis of 'focus' and 'focus and repetition' is shown below. The bracketed numbers equal the descriptor the utterance was qualified by. SF equals student -initiated focus, SR+F equals student repetition and focus, TF equals teacher-initiated focus and TR+F equals teacher repetition and focus.

TRANSCRIPT

T: [Reading from the text] *Examples of such disturbances are the introduction of new*
    TM   **TR+F(2)**   **TR**
predators. Do you know what a predator is?....predator...

S: [inaudible]
          SF(9)
S:*Er....an animal that eats the small....*[gestures with hand]
           TF(5)

T: *An animal that may eat another animal or it may be a bird or it may be a bird or a reptile.*

    SF(5)
S: *Strong eats the weak.*

    TF(5)   **TF(5)**
T: *Strong eats the weak.....yeah.. survival of the fittest.*

(Appendix 3 Class B turns 2-7)

In the excerpt there is one teacher mention, one teacher repetition, one teacher repetition and focus, three teacher focuses and two student focuses for the word *predator.*

Table 20 goes on to show the number of focuses in the classroom discourse overall on vocabulary items recalled by 25% or more of informants. The table includes those words focused upon by the teacher (TF), those repeated and focused upon by the teacher (TR+F), those focused upon by the student (SF) and those repeated and focused upon by the student (SR+F) during the lesson.

Class	Vocabulary Item	Fraction of the Class Sample that Recalled it	Tot. F	TF	SF	Tot. R + F	T R + F	S R + F	Tot. F + R + F
A	butt	5/5	6	3	3	4	4	0	10
	ogle	4/5	16	9	7	3	3	0	19
	cue	4/5	14	6	8	13	6	7	27
	hose	3/5	22	14	8	8	6	2	30
	trigger	3/5	9	7	2	4	3	1	13
	merely	3/5	6	2	4	1	1	0	7
	dowdy	3/5	12	8	4	3	3	0	15
	aggressive	3/5	19	9	10	4	4	0	23
	resent	2/5	41	15	26	5	4	1	46
Total	9		145	73	72	45	34	11	190

B	pip	4/4	10	6	4	0	0	00	10
	predator	3/4	4	2	2	1	1	0	5
	pest	3/4	3	2	1	4	4	0	7
	axe	2/4	5	1	4	0	0	0	5
	fin	2/4	3	0	3	0	0	0	3
	niche(s)	1/4	3	3	0	2	2	0	5
	plague(s)	1/4	1	1	0	7	7	0	8
Total	7		29	15	14	14	14	0	43
C	emerge(d)	6/10	24	16	8	7	7	0	31
	glance	3/10	2	1	1	2	2	0	4
	insane	3/10	2	1	1	3	2	1	5
Total	3		28	18	10	12	11	1	40
D	understudy	5/5	9	7	2	7	7	0	16
	foyer	5/5	5	1	4	3	3	0	8
	conjurer	3/5	19	9	10	9	9	0	28
	monologue	2/5	0	0	0	0	0	0	0
	lyrics	2/5	3	1	2	5	5	0	8
Total	5		36	18	18	24	24	0	60
Grand Total			238	124	114	95	83	12	333

Table 20: The Number of Teacher Focuses (TF) , Student Focuses (SF), Teacher Repetitions + Focuses (TR+F) and Student Repetitions + Focuses (SR+F) on Vocabulary Items Recalled by 25% or more of Informants

Looking at Table 20 we can see that recalled vocabulary items were focused upon 238 times and repeated and focused upon 95 times making the total number of focuses 333. Of the 333 focuses, 126 (38%) were student focuses and 207 (62%) were teacher focuses.

Class A which sustained the greatest amount of uniform recollection of vocabulary overall (9 words) also experienced the most focusing (including repetition and focus) upon these vocabulary items with 190 focuses overall or 21 focuses per word. Class C experienced 40 focuses or 13.3 focuses per

word on average but these figures were skewed by the word *emerge* receiving 24 of these. Classes B and D had 6.14 and 12 focuses per word respectively with 7 and 5 words recalled which does not continue the trend of more focus equalling more recall of words.

If we add student focuses of 72 to student repetitions and focuses of 11 we can see that 83 out of the total 190 focuses (44%) in Class A were made by the learners. Class A therefore experienced the most student focus on new words and had the largest number of vocabulary items recalled uniformly (9 items). In Class C, however, only 11 out of the total 40 focuses (27%) were student focuses and this class had the least number of vocabulary items recalled uniformly (3 items).

It would appear at first from these results that there might be a case for stating that student focus was an important aid to recall of new vocabulary and superior to teacher focus. Classes B and D, however, recalled 7 words or 5 words uniformly and did not fit this pattern; the former class having 32% student focus and yet 7 words recalled and the latter class having 30% student focus and only 5 words recalled uniformly.

Similarly, going back to focuses by the teacher and the student, individual words such as conjurer, received 28 focuses (including repetitions and focuses) and yet were only recalled by three out of the five informants from Class D while the word *butt* received only 10 focuses but was recalled by 5 out of 5 informants

from Class A. So it can be seen that, although broad trends can be observed, individual cases did not always follow these trends

The amount of focus appeared to be one variable that affected the amount of recall of new words in lessons. It was possible, however, for focus to be achieved through exercises requiring little or no interaction, as such, between the students and the teacher or between students and students. As a result of this observation, the current researcher decided to look at the amount of interaction or 'turn taking' that occurred on each of the words recalled by 25% or more of learners. The results of this investigation are recorded in the next section.

Turn Taking

A great deal of work has been done on the process of taking turns in oral discourse and the vital role of turn taking in oral interaction. For this reason, and because the variables examined earlier ('mentioning', 'repeating' and 'focusing') can be present in very uninteractive lessons, it was decided to look at 'turn taking' patterns and the amount of turn taking that was present in the lesson. 'Turn taking' in this study is seen as two or more speakers taking turns to speak to each other and following certain codes of co-operation or acceptable maxims. In the lessons observed, there were also instances where no words were exchanged between learners but sign language was used to communicate. For example, the word axe which came up in the lesson delivered to class B was central to the following events:

1. Student I asked the teacher about one of the clues in the crossword.

2. The teacher pointed to a drawing she had provided on the whiteboard while demonstrating the motion of an *axe*. Student g looked at the whiteboard too.

3. Student h demonstrated with a chopping movement and said *axe*.

4. Student I laughed and wrote the word down.

LATER

5. Student g asked student h about one of the clues in the crossword.

6. Student h demonstrated the movement of an *axe* and pointed to the whiteboard where a picture of an *axe* had been drawn by the teacher

7. Student g looked at the whiteboard and wrote something down.

(Appendix 3 Class B turns 23-25)

In this way, the word *axe* was focused upon and turns were taken by learners when communicating about this word but the word itself was only articulated once and all other turn taking was non-verbal.

In the lessons observed, it appeared that the teacher did the majority of the speaking which was to be expected with teacher-fronted lessons. A closer look at the transcripts of each lesson however showed that recalled vocabulary items were often at the centre of many exchanges between the teacher and the students. In other words many speaking turns were taken by both parties which

included the recalled vocabulary item or referred to it in some way.

For example, the recalled word *merely*, in the excerpt below from Class A, was central to 3 teacher turns (TT) and 5 student turns(ST).

Transcript

TT
T: *Thus a child might be frightened by the sigh of a dog, even though he is safe merely because ....*
ST
S: *Maybe probably*
ST
S: *Just? ..... just ....*
TT
T: *Just. Yes. That is a good word.*
ST
S: *Just.*
ST
S: *Just?* (To S)
ST
S: *Just*

(All students write it down)
TT
T: *Something that is not huge .... merely... its just a small thing .... just. Just because he once had a bad   experience with a dog ...*

(Appendix 3 Class A turns 144-150)

Tum taking on words which came up during the lessons was observed and noted by the researcher. Those words recalled by 25% or more of learners were then examined in terms of the amount of tum taking on those particular words. The results of this investigation are shown in Table 21.

Class	Vocabulary Item	Fraction of the Class Sample that Recalled It	Teacher Turns TT	Student Turns ST

A	butt	5/5	5	3
	ogle	4/5	10	8
	cue	4/5	5	25
	hose	3/5	18	12
	aggressive	3/5	10	11
	trigger	3/5	7	7
	merely	3/5	3	4
	dowdy	3/5	12	7
	resent	2/5	13	31
Total	9		83	108
B	pip	4/4	5	8
	predator	3/4	4	3
	pest	3/4	7	2
	axe	2/4	1	4
	fin	2/4	0	3
	plague(s)	1/4	5	1
	niche(s)	1/4	1	0
Total	7		23	21
C	emerge(d)	6/10	15	10
	glance	3/10	3	1
	insane	3/10	3	3
Total	3		21	14
D	understudy	5/5	9	2
	foyer	5/5	6	5
	conjurer	3/5	13	11
	monologue	2/5	0	0
	lyrics	2/5	5	2
Total	5		33	20
Grand Total			160	163

TOTAL NUMBER OF TURNS TAKEN = 292
Class A= 191
Class B = 44
Class C = 35
Class D = 53

Table 21: The Number of Turns Taken on each Vocabulary Item Recalled by 25% or More of Informants

Table 21 shows the turns taken on those vocabulary items recalled by 25% or more of informants. The total number of turns on 24 vocabulary items was 323. Of these 160 or 49% were turns taken by the teacher and 163 or 50% were turns taken by the students.

The class with the greatest amount of turn taking on vocabulary items (Class A with 191 turns or 21.22 turns per word) also had the greatest amount of uniform recall (9 words).The class with the least amount of turn taking on vocabulary items (Class B with 44 turns or 6.28 turns per word) recalled less words (7 words). Class C again proved to be problematic as, although it experienced the least turn taking overall (35 turns), and the least number of words recalled (3) the word *emerge* was the object of so many turns (25 altogether) that the averages were skewed. Class C only recalled 3 words but had on average 11.6 turns per word. Class D did not fit the trend of more 'turn taking equals more recall' at all, with 53 turns or 10.6 turns per word and only 5 words recalled.

In Class A student turns were 56% of all the turns (12 TTs per word to 9.22 STs per word) whereas in Class B student turns made up 47% of turns (3.28 TTs per word and 3 STs per word). Classes C and D had 40% STs (7 TTs and 4.66 STs) and 38%STs (6.6 TTs per word and 4STs per word) respectively.

Overall, there appears to be a link between the amount of turn taking on a word and its recall. Whether or not that turn taking needs to incorporate a lot of student turn taking in order to be effective in terms of promoting recall of new

words is less clear, although the class with the most student turn taking did recall the greatest number of new words.

When dealing with individual words we can see that the word *resent* was at the centre of 44 instances of turn taking and yet only recalled by two out of five learners whereas the word *butt* was at the centre of only 8 instances of turn taking and yet was recalled by five out of five learners. Overall, however, those words that were at the centre of a lot of turn taking seemed to be recalled by the learners more often.

Student turn taking on words, appears to be linked with the recallability of new words when looking at the cumulative numbers. However, again there are instances where this does not hold true. For example, the word *cue* was at the centre of 25 student turns and only 5 teacher turns and was recalled by four out of five learners whereas the word *butt* was the subject of only 3 student turns and 5 teacher turns but was recalled by five out of five learners. It should be remembered that the nature and length of each turn has not been investigated here and although students appeared to take more turns than the teacher, it is the quality of these turns that should form the basis of any further investigations.

While looking at turn taking on the words recalled by 25% or more of the learners and musing over what other variables might have affected the recall of new words by the informants, it occurred to the researcher that the idea of revision of classroom work was based on the notion that introducing language

and then reintroducing it at a later date was beneficial to recall. Therefore, the next section explores this idea in the context of a single lesson by looking at when words were introduced throughout the lesson.

Introducing/Reintroducing Vocabulary at Different Stages of the Lesson
Each lesson has stages organised around the different aims of the teacher. There may be a presentation stage in which new language, either structures, functions or vocabulary are focused upon. There may be a spoken practice stage following this or a written practice stage. There may be a free discussion stage to finish the lesson or a stage in which students practise receptive skills.

Some of the vocabulary items retained by informants appeared at several different stages in the discourse of the lesson and often at delayed intervals. For example, the word *emerge* in Class C was focused upon initially during receptive skills practice (see Appendix 3 Class C turns 98-117) then again in the next stage which involved some testing exercises(see Appendix 3 Class C turns 198-200) and finally the teacher used it at a later stage as an example to help illustrate the meaning of another word(see Appendix 3 Class C turn 219). With the word *conjurer* in Class D, informants were initially required to guess the meaning of this word while doing an exercise (see Appendix 3 Class D turns 1-25). Several exercises later, the teacher tested the meaning of the word (see Appendix 3 Class D turns 74-76).

Vocabulary items often appeared in one stage, disappeared in the next stage only to reappear and be refocused upon at stages later in the lesson. The possibility that this might affect the degree to which new items of vocabulary were made noticeable / recallable for informants was investigated for those vocabulary items recalled by 25% or more of informants. Table 22 shows these results.

Class	Vocabulary Item	Fraction of the Class Sample that Recalled It	No of Stages in the Lesson at Which the Word was Introduced
A	butt	5/5	2
	ogle	4/5	2
	cue	4/5	1
	merely	3/5	1
	dowdy	3/5	2
	aggressive	3/5	1
	hose	3/5	2
	trigger	3/5	2
	resent	2/5	1
B	pip	4/4	1
	predator	3/4	1
	pest	3/4	1
	axe	2/4	2
	fin	2/4	1
	plague(s)	1/4	1
	niche(s)	1/4	1
C	emerge(d)	6/10	3
	glance	3/10	1
	insane	3/10	1
D	understudy	5/5	2
	foyer	5/5	1
	conjurer	3/5	2
	monologue	2/5	1
	lyrics	2/5	2

Table 22: The Introduction and Reintroduction Vocabulary Items recalled by 25% or more of Informants during the lessons.

Table 22 shows the vocabulary items recalled by at least 25% of the learners in the sample, the class they came up in and the fraction of the learners in the sample that recalled them. The far right hand column shows the number of different stages in the lesson at which the word was introduced. In other words, the word *butt* came up in an exercise given early on in the lesson and then reappeared when the teacher revised the words later on in the lesson. It was introduced twice at different stages of the lesson.

The word *ogle* is given a 2 in the final column because it also was introduced in an initial exercise and then revised at a later stage of the lesson making two

stages in all.

Looking at the table again, it appears that 42% of the recalled vocabulary was introduced and re-introduced at different stages of each lesson. In other words, much more than half (58%) of the words recalled by informants had not been introduced and reintroduced at different stages of the lesson.

In Class A, which had the most recall of words by 25% or more of learners, 55% of the words had been introduced and reintroduced during the lesson. In Class B, which recalled seven words, this figure was 14% and in Classes C and D the figure was 33% and 60% respectively.

Words such as *emerge* had been introduced and reintroduced at three different stages of the 60 minute lesson and recalled by quite a large number of learners in the sample of informants (60%). On the other hand, words like *pip* and *foyer* had only been introduced into the lesson once and yet were recalled by 100% of informants in the class sample. No real links between introduction and reintroduction of words and recall of vocabulary can be made from looking at these figures for individual classes.

Apart from being interested in knowing what variables in the classroom interaction may have had links with recall of new vocabulary, the current researcher was also keen to investigate the amount of interaction by each learner in the lessons and whether this interaction facilitated recall of new words.

The next section looks closely at the learners that recalled large numbers of vocabulary and their classroom interaction patterns. It takes us away from investigating words that were recalled uniformly by 25% or more of the learners and concentrates on individual learners and their behaviour when recalling the words that they did.

High Input Generators and Low Input Generators

High input generators (HIGs) were defined by Seliger (1977) as learners who participated fully in the classroom interaction. Low input generators (LIGs) as those learners who conversely participated on a minimum level in classroom interaction. By 'participate' what was meant was taking a verbal turn in the interaction either with the teacher or with the other students. Many researchers have been interested to find out whether this participation in interaction has any positive effect on uptake and learning.

The present researcher was also interested to find out if learner participation in the discourse was linked to recall of vocabulary items so each informant's participation in the classroom interaction was tracked and a record made of the informant, the number of words recalled and the number of turns taken by that informant in the classroom discourse.

Table 23 shows the results of this analysis.

Informant	No of Words Recalled	No of Turns Taken in the Classroom Discourse
h	15	6
b	12	10
c	10	29
w	10	8
k	10	16
f	10	5
x	8	0
u	7	0
j	7	19
m	6	11
a	6	58
q	5	8
o	5	0
l	5	3
g	5	1
e	5	19
d	5	8
v	4	14
r	4	11
i	4	10
t	3	0
n	3	1
p	2	21
s	1	1

Table 23: High Input Generators and Low Input Generators.

Looking at Table 23 we can see that there does not appear to be a positive relationship between the amount of verbal participation by the informant in the lesson and the amount of vocabulary recalled.

15 vocabulary items were recalled by informant h who only took 6 turns in the discourse of the lesson. This was in contrast to informant a who took 58 turns but only recalled 6 new words. Furthermore, informants x, u, o and t, who did not verbally participate at all in the discourse of the lesson, still recalled 8, 7, 5 and 3 vocabulary items respectively.

So far, we have considered the possible links between certain events in the discourse of the lesson and the recall of certain words by learners by looking at each kind of event separately. It has been shown that there were links between 'mentioning', 'repeating' and 'focusing upon' words and the amount of recall of those words. 'Turn-taking' around new words also seemed to enhance recall. On the other hand, simply being a participant in the classroom interaction did not appear to give learners greater powers of recall when it came to new vocabulary and 'introducing / reintroducing' new words at different intervals during the lesson also seemed to have no positive effect on recall of those words.

However, to gain an overall picture it was necessary to look at all of the variables examined earlier, reiterate the findings for those words recalled by 25%, 50% and 75% or more of the learners and identify any further trends that became

evident. The next section attempts to both consolidate findings already reported and establish broader trends across the lessons observed.

4.5 Comparing the Variables and Their Effect on Vocabulary Recall

So far the analysis of links between the classroom discourse and the learners' ability to recall certain vocabulary items from the lesson they attended has been reported and commented upon in terms of the different classes in which the students participated. This is a useful picture but it was felt that an even more useful picture would be gained by placing all the words that had been recalled by a large proportion of the informants (75% or more) together and relating these words to the amount of 'mentioning', 'repetition', 'focus', 'turn-taking' and 'introducing / reintroducing' that co-occurred with these words. The same analysis was applied for those words recalled by 50% to 74% of informants and 25% to 49% of informants.

Tables 24 and 25 show these results.

Recalled by 75% or More of Informants	Class	Vocabulary Item	Fraction of Class Sample that recalled it	Mentions		Repetitions		Focuses	
				TM	SM	TR	SR	TF	SF
	A	butt	5/5	1	0	2	0	3	3
		cue	4/5	1	0	2	2	6	8
		ogle	4/5	1	0	4	1	9	7
	B	pip	4/4	0	1	0	2	6	4
		pest	3/4	1	0	7	0	2	1
		predator	3/4	1	0	2	0	2	2
	C	-	-	-	-	-	-	-	-
	D	understudy	5/5	1	0	4	0	7	2
		foyer	5/5	0	1	2	1	1	4
	Sub-Total	8		6	2	23	6	36	31
	Total			8		29		67	
	Grand Total = 104								
Recalled by 50% to 74% of Informants	A	dowdy	3/5	1	0	5	2	8	4
		trigger	3/5	1	0	4	1	7	2
		merely	3/5	1	0	0	0	2	4
		aggressive	3/5	1	0	5	0	9	10
		hose	3/5	1	0	6	1	14	8
	B	axe	2/4	0	1	0	0	1	4
		fin	2/4	0	0	0	0	0	3
	C	emerge(d)	6/10	0	1	6	0	16	8
	D	conjurer	3/5	1	0	5	1	9	10
	Sub-Total	9		6	2	31	5	66	53
	Total			8		36		119	
	Grand Total = 163								
Recalled by 25% to 49% of Informants	A	resent	2/5	1	0	1	0	15	26
	B	niche(s)	1/4	1	0	0	0	3	0
		plague	1/4	1	0	4	0	1	0
	C	insane	3/10	0	1	2	1	1	1
		glance	3/10	1	0	0	0	1	1
	D	lyrics	2/5	1	0	1	0	1	2
		monologue	2/5	0	0	0	0	0	0
	Sub-Total	7		5	1	8	1	22	30
	Total			6		9		52	
	Grand Total = 67								

Table 24: Shows the Number of Mentions, Repetitions and Focuses on Vocabulary Items Recalled by 25% or More of Informants

Recalled by 75% or More of Informants	Class	Vocabulary Item	Fraction of Class Sample that Recalled It	Repetition and Focus		TurnTaking		Introduced at Different Stages of the Lesson Y= yes N= no
				TRF	SRF	TT	ST	
	A	butt	5/5	4	0	3	3	Y
		cue	4/5	6	7	5	25	N
		ogle	4/5	3	0	10	8	Y
	B	pip	4/4	0	0	5	8	N
		pest	3/4	4	0	7	2	N
		predator	3/4	1	0	4	3	N
	C	-	-	-	-	-	-	-
	D	understudy	5/5	7	0	9	2	Y
		foyer	5/5	3	0	6	5	N
	Sub-Total	8		28	7	49	56	3Y
	Total			35		105		3Y
	Grand Total = 140							
Recalled by 50% to 74% of Informants	A	dowdy	3/5	3	0	12	7	Y
		tngger	3/5	3	1	7	7	Y
		merely	3/5	1	0	3	4	N
		aggressive	3/5	4	0	10	11	NY
		hose	3/5	6	2	18	12	
	B	axe	2/4	0	0	1	4	Y
		fin	2/4	0	0	0	3	N
	C	emerge(d)	6/10	7	0	15	10	Y
	D	conjurer	3/5	9	0	13	11	Y
	Sub-Total	9		34	3	79	69	6Y
	Total			37		148		6Y
	Grand Total = 185							
Recalled by 25% to 49% of Informants	A	resent	2/5	4	1	13	31	N
	B	niche(s)	1/4	2	0	1	0	N
		plague	1/4	7	0	5	1	N
	C	insane	3/10	2	1	3	3	N
		glance	3/10	2	0	3	1	N
	D	lyrics	2/5	7	0	5	2	Y
		monologue	2/5	0	0	0	0	N
	Sub-Total	7		24	2	30	38	1Y
	Total			26		68		1Y
	Grand Total = 94							

Table 25: Shows the Number of Repetitions + Focus, Turns Taken, Stages at Which Vocabulary was Introduced and Reintroduced on Vocabulary Items Recalled by 25% or More of Informants

Looking at the Grand Totals on Tables 24 and 25 for all the bands of learners and adding them together , we can see quite an unusual pattern emerging. Those words falling into the band 'recalled by 75% or more of the learners' have in total 244 (104 + 140) mentions, repetitions, focuses, repetitions and focuses, turns-taken and introduction at different stages of the lesson. On the other hand, those words recalled uniformly by 25% to 49% of informants , were the subject of only 161 (67 + 94) of these events. In other words, those words recalled by 25% to 49% of learners were the subject of less mentioning , repetition, focus, tum-taking and introducing /reintroducing of vocabulary during the lesson (an average of 23 to each word) than those words recalled uniformly by the majority or 75% or more of informants (an average of 32 to each word).

This mirrors some of the results discussed earlier in the chapter when looking at performance on a class by class basis. However, an unusual trend was seen when looking at the amount of mentioning, repetition, focus, turn-taking and introducing and reintroducing on vocabulary items recalled by the middle range of informants or 50% to 74% of informants. The total altogether was 348 (163 + 185), with an average of 39 to each word. Whereas the amount on those words recalled by all or most informants , 75% or more, was 244. So ,in fact those words recalled by only 50% to 74% of informants or the middle range of informants received most attention within the discourse of the lesson.

The numbers given above were rather cumulative and could hide exceptions. This being the case it was necessary to examine each variable and look at the

average amount of this variable for each word within the sample of learners used. For example, the average number of mentions on words in the 25% to 49% bracket was the same as the number for words in the 50% to 74% bracket (.85 per word and .88 per word respectively). However, words in the 75% or more bracket were mentioned slightly more often than this (1.00 per word). This trend does not mirror the trend observed when looking at mentioning cumulatively but we are dealing with very small figures in this case.

The average number of 'repetitions' per word for those words recalled by 25% to 49% of informants was 1.28 whereas the average number of 'repetitions' for words in the 50% to 74% bracket was 4.5 and higher than the average for the words in the 75% to 100% bracket which was 3.6. These figures establish a trend which is mirrored in the broader trend explained earlier.

The average number of focuses per word in the 25% to 49% bracket was 7.43. In the 50% to 74% bracket it was 13.22 and in the 75% to 100% bracket 8.37. The average number of repetitions and focuses per word in all of the brackets was much closer with 3.72, 4.11 and 4.37 respectively. Clearly, the latter figures do not resemble the trend already established. However, if all of the focus figures are treated as one group, the figures do mirror the broad trends seen in the cumulative figures.

The average number of 'turns-taken ' per word in the 25% to 49% bracket was

6.4. In the 50% to 74% bracket it was 16.44 and in the 75% to 100% bracket it was 13.12. These figures mirror the broad trend already established where words recalled by the middle range of learners received more attention than those recalled by 75% to 100% of learners. In other words, in both scenarios , more attention to new words, past a certain amount, did not lead to greater recall of those words.

To sum up, the basic trend observed by the researcher in terms of the effects of elements of the classroom discourse on recall of new vocabulary, was that words were recalled more often if they were paid more attention but after a certain amount of attention , recall did not seem to improve and in some cases paying attention worsened rates of recall. This trend was born out both in the cumulative scores shown for the amount of attention received and individual word averages.

4.6 Overview of the Chapter

In order to appreciate the findings related in this chapter we should remind ourselves of the original research questions asked by the current researcher. The first question was:

What vocabulary do adult EL learners recall and retain from lessons?

In an attempt to answer this we can summarise the findings below.

Vocabulary Recalled

Amount

152 words were recalled overall by 24 learners. 133 were recalled strongly (i.e. both word and meaning) and 19 were recalled weakly (i.e. only the word was recalled). On average each learner recalled 6 words but in fact on an individual basis some learners recalled as many as 12 words and others as few as one word. Class A recalled 8 words on average, Class B 8.75, Class C 4.7 and Class D 6.4.

Uniformity / Variability

49% of the total words recalled by learners were recalled by 25% or more of informants. In other words there was uniformity of recall on 49% of the words. A greater amount or 51% of the total words, however, were recalled by very few or only one informant. This means that roughly half of the words recalled were common amongst learners (uniformity of uptake) and half were recalled by only one or a few individuals (variability of uptake).

Linguistic Characteristics

Length of the Words

Overall, two syllable words were recalled the most often by learners. Patterns within individual classes, however, varied from this with one class recalling mostly 1 syllable words and one class words with more than 2 syllables.

Parts of Speech

Overall, nouns were recalled the most often but again individual classes varied from this pattern with one class recalling only verbs and adjectives .

Positive, Negative or Neutral

Most of the words recalled had neutral connotations. No words with positive connotations were recalled.

Concrete Versus Abstract

More abstract words were recalled than concrete words overall although the figures were very close. Again individual classes did not mirror this result, however, with Classes B and D recalling all concrete vocabulary .

Modified Words

Some informants recalled only parts of words such as 'mono' or 'micro'.Others changed the form of words slightly or mixed up stems during the process of uptake or later during the process of storing the new words in short term memory. For example, the cases where the word 'concentric' was recalled as 'concentor' and 'spectator' as 'inspector'.

Long Term Retention

Tests 1 and 2, used to test learner retention of the words they had recalled from the lessons, revealed that retention of recalled words was high overall, even with the class which received a slightly different treatment. Some of the words initially recalled weakly by learners were recalled strongly in the second test. Some test effect was detected but the group of informants that received only one interim test still had high rates of retention, all be it not as high as those informants who received two interim tests.

The second question asked by the researcher was:

Why do they (adult EL learners) recall the vocabulary that they do?

The answer to this question was sought by asking the learners themselves to reflect upon the lesson and by the researcher looking closely at the interaction of the lesson in an attempt to identify any variables which seemed to be linked to increased recall of vocabulary.

As the researcher was particularly interested in what made some words more recallable than others , only those words recalled by more than 25% of the learners in the sample were traced in the discourse or taken account of in terms of the reasons given by learners for recall. The researcher was keen to report on trends with learners during lessons rather than anomalies with learners during lessons. If a word was recalled by many informants it had obviously been made salient by particular events in the lesson or characteristics of the word itself. It was these events that most interested the researcher.
The findings below attempt to answer this second research question.

Reasons Given by Informants for Recall of New Vocabulary
The most important reason for recall of new vocabulary items by learners in the sample, was *Interaction with the Data. Classroom Interaction* was also important but reasons which fell into this category were not given as often as the former. *Personal Agendas/ Priorities* of the learners also featured as a category of reasons for recall, as did *Previous Learning / Beyond the Classroom* but reasons for recall related to these categories were not given very often.

'Dictionary Use' and 'Formulating Incorrect Hypotheses' about the new words

were the reasons given most for recall in the *Interaction with the Data* category.'
Word Characteristics' was also a substantial category.

Reasons categorised under *Classroom Interaction* related to *Teacher-Student*
interaction, *Student-Teacher* interaction and *Student-Student* interaction. The
latter category was the smallest of these categories. Students also identified the
benefits to the recall of new vocabulary of *'eavesdropping'* or passively listening
to other learners speak or negotiate meaning.

Profiles of Individual Informants

Individual learners mentioned the many different strategies they had used for
recalling new vocabulary and the many different series of events that had led
them to notice vocabulary items during the lesson. On the whole, learners
identified a diverse range of reasons for recall of new vocabulary rather than any
one particular strategy or method or technique used in the lesson.

The Interconnectedness of the Reasons Given for Recall

Although learners identified many different reasons for recall of new vocabulary,
these reasons could not always be easily classified into one particular category.
It was necessary to isolate and separate reasons for recall given by learners in
order to establish any possible trends, but each lesson was dynamic with each
event in the lesson affecting and interacting with each other event.
Characteristics of the word itself were also seen as interacting and overlapping
with events in the lesson. Categories that were formed merely represented

where the weight of any one reason lay.

The Discourse of the Classroom Interaction Analysed

Confirmation of the Data Given by Informants Which was Linked to the Classroom Interaction

Informants were very accurate in the descriptions they gave the researcher of events surrounding the noticing of certain vocabulary items . There were only 2 cases where informants had confused a student response for a teacher response in the classroom interaction. Strategies reported by students that could not be observed in the discourse obviously could not be confirmed or negated by the researcher.

Links Between Features of the Classroom Discourse, Interaction, Input and the Recall of Vocabulary

Certain features of the classroom interaction appeared to have links with the recall of vocabulary when looking at informants as a group. These were:

Mentioning

*Comparison of the classes

92% of all vocabulary items recalled by more than 25% of the learners had been 'mentioned' by either the teacher or the student during the lesson. 71% of these mentions were by the teacher and 21% were by the students. 8% were not mentioned at all.

*Comparison Across the Sample

In the final analysis, words recalled by 25% to 49% of informants had been

mentioned less (6 out of the 7 words or .86 mentions per word) than those recalled by 75% or more of informants (8 out of the 8 words or 1.0 mentions per word) .The amount of mentioning on average of those words recalled by 50% to 74% of informants was the same as that for 25% to 49% of informants(8 out of the 9 words or .88 mentions per word). There were mostly teacher mentions and very few student mentions due to the teacher-frontedness of the lessons observed and so no links between student mentioning and recall could be established.

Overall, differences observed between the bands of learners mentioned above were minimal. The important thing was that almost all the words recalled by 25% or more of informants had been mentioned at some point during the lesson.

Oral/Aural Repetition

*Comparison of the Classes

The class that experienced the most repetitions on new words recalled by more than 25% of learners (Class A with 4 per word) also had the most recall of new words from the lesson. Class C (3 repetitions per word) had skewed results due to 6 repetitions on a single item of vocabulary. Classes B and D, with 7 and 5 words recalled respectively, had similar amounts of repetition (2.14 per word and 2.8 per word).

*Comparison Across the Sample

75% of the vocabulary items recalled by 25% or more of informants had been **repeated** either by the teacher, the person on the audio-tape or the students during the lesson.

The average number of repetitions for vocabulary items recalled by 75% or more of informants was 3.62 repetitions on each item. For those recalled by only 25% to 49% of informants it was 1.28 repetitions per vocabulary item.

The amount of repetition on those words recalled by the middle group of informants (50% to 74%) was 39 or an average of 4.5 repetitions per vocabulary item. This was more than that on those words recalled by 75% or more of informants which was 31 or an average of 3.88 repetitions per vocabulary item. It seems that after a certain amount of repetition, words were not rendered as recallable. This was highlighted in the fact the words that received the most repetition were not recalled the most often.

Student repetitions were a greater fraction of the total repetitions of vocabulary recalled by 75% or more of informants [21% or .75 SRs per word] than vocabulary recalled by 50% to 74% of learners [14% or .55 SRs per word] or 25% to 49% of informants (11% or .14 SRs per word) but the figures were very close.

Despite all of these patterns , several individual vocabulary items did not always follow this trend, highlighting the importance of looking at individual cases when discussing classroom learning and the variability that can occur in any one lesson.

Focusing

Comparison of the Classes

The class that experienced the most focusing upon vocabulary items recalled by more than 25% of learners, including repetition and focus , (190 altogether or an average of 21 per word) also had the most uniform recall and the greatest number of words recalled by informants. However, it did not necessarily follow that classes with less words recalled had correspondingly less amounts of focus on words. Class B with 7 words recalled had 6.14 focuses per word, Class C with only three words recalled had 13.3 focuses per word (again the figures were skewed by a large number of focuses on one particular word) and Class D with 5 words recalled had 12 focuses per word.

The class with the greatest fraction of student focuses (Class A with 44% student focuses) had the most uniform recall. The other three classes had 32%, 27% and 30% student focus respectively. A pattern in terms of the effectiveness of student focus over teacher focus could be estimated. However 3 words, 5 words and 7 words were recalled with almost the same amount of student focus and therefore no strong links can be suggested.

Comparison Across the Sample

Words recalled by 75% or more of informants were focused upon 102 times (67 focuses and 35 repetitions and focuses) or an average of 12.75 times per word whereas those recalled by 25% to 49% of informants were only focused upon 78 times (52 focuses and 26 repetitions and focuses) or an average of 11.14 times per word. This would seem to indicate that the more the focus the more the recall of vocabulary. However, words recalled by 50% to 74% of informants or the middle range of informants received more focus than those

recalled by 75% or more of informants, with the number of focuses being 156 (119 focuses and 37 repetitions and focuses) or an average of 17.33 focuses for each word.

There did not seem to be any different effect on recall of vocabulary items when the number of student focuses was higher than the number of teacher focuses. The percentage of student focuses for vocabulary items recalled by 75% or more of informants was 37% (or 4.75 SFs per word). For vocabulary recalled by 50% to 74% of informants it was 36% (or 6.22 SFs per word)and for vocabulary recalled by 25% to 49% of informants it was 41% (or 4.57 SFs per word). From these figures we can see that increasing student focus did not appear to increase recall of new words.

On an individual word level most of the above trends were disrupted. Words such as *monologue* were not focused upon at all and yet 40% of interviewed informants from Class D recalled the word whereas the word *resent* was focused upon 46 times and yet still only 40% of informants from class A recalled it.

Turn Taking

*Comparison of the Classes

Looking at the breakdown of results for each class, Class A with the greatest amount of turn taking on vocabulary items recalled by more than 25% of learners (191 turns or 21.22 turns per word), recalled the highest number of vocabulary items (9) uniformly. Class B with the least amount of turn taking on

vocabulary items (44 turns or 6.28 turns per word) recalled less words (7 words). However, Class C had figures which were skewed by one word in particular being the subject of a lot of turn taking and Class D did not fit this pattern as new words were the subject of 53 turns or 10.6 turns per word and yet only 5 words were recalled.

All of the classes had approximately the same balance of STs and TTs (Class B 47% or 3.28TTs and 3STs per word , Class C with 40% STs or 7TTs and 4.66STs per word and Class D with 38% STs or 6.6TTs and 4STs per word) except Class A which experienced a higher percentage of STs (56% or 9.22 TTs and 12STs per word) and recalled the highest number of words uniformly. It seems there could be a link between the number of STs and recall of new words.

*Comparison Across the Sample

Looking at the breakdown of recall of new words into those recalled by 25% to 49% of learners, those recalled by 50% to 74% of learners and those recalled by 75% to 100% of learners, it appeared at first that we could say that the greater the number of turns taken on each vocabulary item, the greater the possibility of recall by informants. However, words recalled by 75% or more of informants had been the subject of 105 turns altogether or 13.12 turns per item on average .Those recalled by 50% to 74% of informants had been the subject of 148 turns altogether or 16.44 turns on average per item. Those recalled by only 25% to 49% had been the subject of 68 turns altogether or 9.71 turns per item on average. Looking at these results it can be seen that the amount of turn

taking on those words recalled by only 50% to 74% of informants was more than that on those words recalled by 75% or more of informants all be it fairly close. Therefore the original statement cannot be supported and we must look again to explain these figures by suggesting that after a certain amount of turn taking words are not more recallable.

Of the 105 turns or 13.12 turns per word experienced by 75% or more of informants, 56 (53%) or 7 turns per word were student turns. Of the 148 turns or 16.44 turns per word experienced by 50% to 74%, 69 (47%) or 7.66 turns per word were student turns. Finally, of the 68 turns or 9.71 turns per word taken on words recalled by 25% or more of learners, 38 (56%) or 5.42 turns per word were student turns. It could originally be hypothesised that the greater the number of student turns taken on a word , the greater the link with recall. However, it seems that increasing the number of student turns taken around a word after a certain amount seems to have little effect or a negative effect on recall.

Again individual vocabulary items mirrored this trend. The word *butt* was recalled by 100% of informants from the class sample and the subject of 9 turns [3 of which were student turns] . The word *hose* was the subject of 30 turns [with 15 student turns] but only recalled by 40% of informants from the class sample.
Introducing and Reintroducing Vocabulary at Different Stages of the Lesson.
Comparison of the Classes
In the earlier part of the chapter we saw that Class A, with the greatest number

High Input Generators and Low Input Generators

*Comparison of Individuals

There was no positive relationship found between informants who participated in the classroom interaction (HIGs) by demanding a lot of turns in the discourse and the amount of vocabulary items recalled by these learners. On the contrary, some learners did not participate in the classroom interaction at all (LIGs) and yet they recalled substantial amounts of new vocabulary.

On an individual basis, 2 informants who did not participate at all in the discourse (0 turns) recalled above average numbers of vocabulary items (7 or 8) while 1 informant who participated fully (58 turns) recalled only 6 items of vocabulary. Overall interaction on the part of the learners did not appear to be a prerequisite for the recall of new vocabulary.

The findings reported above compared those vocabulary items recalled by 75% to 100% of learners to those recalled by only 25% to 49% of learners in the sample and found that there appeared to be links between the amount of certain variables in the classroom interaction and increased amounts of recall of new vocabulary. However, learners in the middle bracket of 50% to 74% did not experience these variables in amounts which fitted comfortably into this trend.

First of all, repetition of vocabulary items for 75% or more of informants was 3.62 on average, 4.5 for 50% to 74% of informants and 1.28 for 25% to 49% of informants. Focuses were 12.75 on average for words recalled by 75% to 100%

of informants, 17.33 on average for words recalled by 50% to 74% of informants and 11.14 on average for words recalled by 25% to 49% of informants.

Tum-taking was 13.12 turns on average for items recalled by 75% or more of informants, 16.44 turns on average for items recalled by 50% to 74% of informants and 9.71 turns on average for items recalled by 25% to 49% of informants.

Out of 8 words recalled by 75% to all of informants 3 [37%] were introduced and reintroduced. This was true for 6 out of 9 items [66%] recalled by 50% to 74% of informants and 1 out of 7 [14%] of items recalled by 25% to 49% of informants. Mentioning followed a slightly different pattern , however. Those words recalled by 50% to 74% of learners were mentioned approximately the same amount of times as those recalled by 25% to 49% of learners (.88 and .86 mentions per word) . In other words, there was no visible increase in the amount of mentioning on words recalled by 25% to 49% of informants and 50% to 74% of informants but there was a visible increase, all be it insubstantial, in the amount of mentioning on those words recalled by 75% to 100% of informants.

Generally speaking, the more repetitions and turns taken by students in the classroom interaction around new words, the greater was the recall of vocabulary. Figures were close, however, although this did not hold true for student focus or student turns, and it did not follow that those learners doing more interacting recalled more vocabulary items.

Overall, with the exception of mentions, the number of repetitions , focuses, turns taken and introductions at different stages of the lesson was higher for those vocabulary items recalled by 50% to 74% of learners. Therefore, it could not be said that the more repetitions, focuses, turns taken and reintroductions of words there were, the more recall of words there was without adding that too much of any of these variables (except perhaps in the case of 'mentioning') had a negative impact on recall or no impact at all.

Therefore, in answer to the question *What vocabulary do adult EL learners recall and retain from a lesson* and *Why do they recall the vocabulary that they do?* we could simply say that they recall and retain words that have been made noticeable primarily through interaction with the data and to a lesser extent through classroom interaction. We can say that words that have been mentioned, repeated, focused upon and had turns taken on or around them during the classroom discourse are also likely to be recalled. In short, words that have been made explicit to learners during the lesson, either because they have been worked on, paid a lot of attention, or through interaction, are likely to be recalled.

In the next chapter, the findings presented here are discussed in the light of previous studies documented earlier in the literature review and comparisons and contrasts made.

Chapter 5 - *Discussion of the Findings*

It is hoped that the findings described in the previous chapter can add something to the current corpus of psycholinguistic knowledge about second language vocabulary acquisition and development. The findings also have implications for second language acquisition and retention generally and highlight issues related to current pedagogy and methodologies used in second language research.

This chapter discusses the findings by dividing them into three main areas. Firstly, methods used for conducting research are focused upon and using learners as resources, quantitative and qualitative approaches ,cross-sectional and longitudinal approaches are considered.

Secondly, the researcher considers vocabulary learning in terms of what is going on inside the learner. In other words, the findings are considered from a psycholinguistic perspective.

Finally, the implications of the findings for second language learning, acquisition and retention are examined and the role of input, interaction, uptake, learners' own agendas assessed. The learners and their profiles are also considered.

To begin with then, we will look at the way the research was conducted and relate it to the literature reviewed earlier in the thesis.

5.1 Conducting Research into Vocabulary Learning: Methodological Insights

5.1.1 Learners as Resources

Prior to this piece of research, the current researcher had not really considered the learner to be a reliable source of information regarding the processes taking place in the classroom and inside his or her own head. The initial pilot study in which informants were asked to reflect upon the lesson they had just had and then record their reflections on a questionnaire proved very unproductive. Partly because of this, the astute and very precise reflections made by informants during the interviews came as something of a surprise. Learners were much more aware of the detail of lessons than I previously imagined and could often describe the minutiae of the events surrounding the noticing and subsequent recall of a vocabulary item. In other words ,learners were very conscious of the events of the lesson and as the video recording of each lesson portrayed, also very accurate in terms of being able to pinpoint examples of classroom interaction that aided recall of new words. This in itself was a significant finding and proved Allwright and Breen correct in the notion that an observer's external perspective is not enough to reach an adequate understanding of how language is learnt and that research should incorporate the considered reflections of participants.

There is no doubt that explicit classroom interaction is easier to track and check for accuracy or validity than introspection so there is still a place for observation. However, the revelation of the highly developed reflective skills displayed by

learners in this study highlighted the valuable resource teachers have at their fingertips and the possibilities that exist in terms of action research on learning in the classroom.

5.1.2 Qualitative and Quantitative Approaches

Leaving the questionnaires and the interview questions so open-ended meant that a large amount of information was gleaned from informants and that areas of enquiry were revealed that had not been considered before. In this way the study did become rather large and unwieldy but at the same time the responses given by learners created a lot of scope for formulation of hypotheses that could be investigated in the future.

An initial qualitative approach meant an open mind from the outset .The many different responses could then be quantified and narrowed down to observable trends. Any attempt to make this study completely quantitative would have limited the wealth of responses offered by informants and defeated the object of asking learners to examine their own language learning experiences. Thus the move away from the quasi-experimental research design often used in second language acquisition research towards a more descriptive approach allowed the learners to have a voice and the researcher to tap into a rich source of previously unobtainable data.

The responses of learners were not easily designated to any one category. In other words reasons for recall are all very interconnected and this

interconnectedness is allowed to manifest itself when using qualitative approaches to data collection such as open ended questionnaires and unstructured interviews.

5.1.3 Cross-sectional and Longitudinal Approaches

Although mostly cross-sectional in nature this study did attempt to incorporate at least an element of longitude into the proceedings. The advantage of having the former approach in such a study is that it is possible to get quite a good overview of the learners being investigated and thus convince yourself that the sample is at least fairly representative of the learner population in question. However, being able to follow these learners through several lessons would no doubt have been very enlightening. As it was, learners were traced over approximately two months and some sense of long term performance gained. Incorporating the two approaches into the same study can overcome the lack of generalisability that studying a small sample for a long period of time can bring and ensure that more informants are investigated over , if not a long period of time , a sufficient period of time to render the study not purely cross-sectional.

5.2 Psycholinguistic Considerations

A lot of research conducted in the tradition of mainstream psychology, such as

Baddeley's work, has focused upon first language recall and retention of vocabulary and been done in very tightly controlled experimental settings. The present study looked at L2 recall in a natural classroom setting during four one hour lessons. These differences need to be kept in mind when drawing any parallels between the results of his research and this study.

Baddeley (1974) suggested that the length of a word (i.e. the number of syllables) and especially the amount of time taken to articulate the word, determined the amount of vocabulary items that could be retrieved from short term memory. The shorter the word the more words would be recalled. Hence it should naturally follow that an informant who recalled 15 new items of vocabulary (the largest number recalled by any informant in the present study) should be recalling one syllable or short words if other informants were only recalling 5 or 6 vocabulary items . In fact, only 6 of the 15 new words recalled were one syllable words and the rest were 3 syllables or more. In comparison, another informant recalled only two words of one syllable.

Baddeley also states, however, that short term memory is reliant on lexical sound while long term memory relies more on lexical meaning. The amount of time that lapsed between informants 'noticing' the new vocabulary items and recalling them for the interviewer might have meant that the words underwent 'deeper processing' (Stahl, 1988, p 664) and recall was due to meaning not sound.

The majority of vocabulary items recalled overall in the current study, consisted of two syllables. This could have been because as upper intermediate and advanced learners they already had a sizeable repertoire of single syllable words and any vocabulary that was 'new' to them at this level would by virtue of the fact that it was more complex have more than one syllable. It could also be that a greater number of two syllable words arose in the lessons .

Words recalled the least were of more than two syllables which does appear to fit in with Baddeley's idea that fewer long words than short words will be recalled. It should be mentioned here though that each class used in the study had a different profile and indeed one class recalled more words with greater than two syllables. The differences in results highlight the presence of other variables in vocabulary retention in a classroom setting and provides evidence to support Finneman's idea (1980) that certain learners may be characterised as either form or meaning based.

Similarly Higa (1965) and Granger (1993) found that nouns were recalled more often than other parts of speech. This was born out in the present study although there was some variability again between classes and some cases where only verbs and adjectives were recalled and words with negative connotations such as *aggressive* were recalled less frequently than words with neutral connotations such as *emerge* which also mirrors Higa's hypothesis. Concrete words such as *foyer*, however, were not recalled more often than abstract words such as *resent*, both being recalled equally.

The same reasons as those offered above could be given to explain these results. There were possibly more nouns, verbs, adjectives, negative words or abstract words cropping up as 'new' vocabulary items in the lesson or other classroom variables moved into play to override linguistic characteristics.

Whichever way we look at it, the most important deduction to be gleaned from these results is the fact that , in terms of the uptake of new vocabulary items , there was great variability between different lessons and different learners and that results gained in experimental settings may bear little resemblance to those gained from a classroom at any particular time.

This obviously has implications for methods of teaching vocabulary which will be dealt with later on in the discussion. It also questions the idea put forward by Krashen in his *Natural Order Hypothesis*, that learners learn languages in predetermined sequences even in instructional settings. If this were the case for vocabulary acquisition, surely uptake of new vocabulary items by intermediate level proficiency students in this study would be a lot less varied in terms of the kinds of words recalled. Some of the classes of students recalled mostly two syllable words while another class recalled mostly three syllable words; one class recalled only verbs and adjectives and another mostly nouns for example.

Berman, Buchbinder and Beznedeznych (1968) put forward the concept of *potential vocabulary* or vocabulary that has come only part of the way along the

continuum between *noticing* and acquisition, stopping short of correct pronunciation or correct orthography. There was some evidence of this in the results of the present study , with informants recalling *garah* instead of *galah* , *concentor* instead of *concentric* or *inspector* instead of *spectator* or even part words such as *micro* or *mono*. It was not possible to trace if this ' potential vocabulary' eventually became correctly spelt or pronounced or showed any closer resemblance to the word intended because retention tests were designed to test recognition memory rather than totally unprompted recall. However, it does provide some data that seems to suggest that vocabulary learning is a developmental process. In answer to Palmberg's question(1987): 'Is lexis acquired gradually or put into active production just from having been heard?' this study would seem to provide information to confirm that it is a developmental process in some cases.

The notion of vocabulary items being acquired gradually would also be supported by the fact that learners mentioned having encountered some vocabulary items during previous learning experiences and yet still considered these items of vocabulary presented during the lesson to be 'new' items for them as they were unsure of the meaning or pronunciation or some other aspect .

Ludwig (1984) concluded that new words in a second language which resemble phonologically words in the learners L1 will be easier to learn. Beaton and Ellis (1993) also found this and went one step further in espousing that similarity between orthography of the L1 vocabulary items and L2 items also makes them

easier to learn.

In the present study, only two out of the 104 reasons given for recall pertained to this idea of similarity of L1 and L2 words. This does not mean that the idea of resemblance cannot be taken seriously however. Unlike European languages, very few vocabulary items are common to Asian and English languages and those that are often have very different pronunciation. The chances of these shared words coming up therefore with the particular population of students were very slim.

As far as the importance learners attached to word characteristics such as spelling or sounds as an aid to recall , 8% of informants gave reasons that fell into this category. This result shows that while psycholinguistic aspects of lexical items do have a part to play in aiding retention they are by no means the beginning and end of the story. Many other factors are at play in the classroom environment. These factors and their implications for second language learning theories are discussed in the next section.

5.3 Implications for Language Learning and Retention

5.3.1 Input

Researchers such as Krashen (1981) and Pienneman(1989) have questioned

the teachability of language ; putting the emphasis on comprehensible input rather than conscious focus upon the language to be learnt. In other words, they believe that in order for language acquisition to take place it is important for learners to be exposed to language rather than explicitly taught it. Learners in this study mentioned 'the materials' as their reason for recall 7% of the time. However, such a response is very vague and does not pinpoint exactly what it was about the material or input that was conducive to recall. Perhaps the input was comprehensible and therefore the input became intake, but there is also the counter argument put forward by Doughty (1991) and White (1987) that there is not necessarily a positive correlation between comprehension and acquisition. In fact, *incomprehensible input* may be what is needed in order for the learners to pay attention to, notice or observe a gap in previous knowledge; in this case knowledge about a new lexical item.

Most of the reasons for recall given by learners came under the heading *Interaction with the Data*. In other words, learners attributed recall of lexis to the nature of their involvement with the materials or texts or data provided for them during the lesson. This supports Palmberg's research (1987) in which he found that textbook vocabulary was the vocabulary learnt from lessons. The largest sub-category of the main category *Interaction with the Data* was 'Dictionary Use'. For example , informant u said for the word *foyer*.

I looked up dictionary ;(Appendix 2 Class D)

Informant w for the word *lyric* said:

For the word I remember the lyric meaning because after you can use dictionary; (Appendix 2 Class D)

and for the word *pest* informant f said:

open dictionary and... and remember them and *I check this in the dictionary.*(Appendix 2 Class
B)

What exactly it was about the dictionary that triggered recall could not be
pinpointed by the informants. The kind of dictionary used was also not
established i.e. bilingual or English -English. If in fact learners were using the
former it would be expected that input would be very comprehensible as
definitions would be in their own language even though taken out of context. If,
however, informants used the latter it could be argued that input might have
been largely incomprehensible with several meanings offered for the one
vocabulary item and synonyms often more complex than the word required.

In either case, however, considerable mental effort would have been required
to make sense of the new lexical item. Learners identified this mental effort as
a factor in aiding recall. They also gave other reasons for recall which were
along the lines of confusion or missed intake. For example, learners said when
interviewed about their reasons for recall of the words *pip* and *foyer* repectively:
maybe before I researched about this word but 'pip' didn't write in the dictionary; (Appendix 2
Class B informant g).
*Because we made it to a group(of words) I want to check up from dictionary...I didn't find
word;*(Appendix 2 Class D informant t).

The second most common reason for recall after 'Dictionary Use' was 'Incorrect
Hypotheses' made about the meaning of the new vocabulary item. This had

helped the lexical item to stick in their minds. One example given by informant j for the word *insane* was:

I'm thinking 'insane' have a different meaning like 'in spite of'; (Appendix 2 Class C).

It seems then, that there needs to be a certain amount of incomprehensibility initially in order for new vocabulary to be noticed followed by a reflective phase. The question remains however, does this incomprehensible input lead to comprehensible output or incomprehensible output? In terms of accurate reproduction and knowledge about lexical items which were not the subject of classroom interaction, this was not the case. Informants repeated the word intelligibly and were able to give approximate meanings for the new lexis during the post lesson interview. However, there was no way of knowing from the retention tests if informants' communicative performance would be as effective in terms of correct use of the new words.

Looking at comprehensible input again, it could be argued that when learners were given opportunities to articulate the new vocabulary items to the interviewer this vocalisation was a form of comprehensible output. This comprehensible output may have strengthened test effect leading to high retention rates. This does not hold up if we look at the group that experienced less opportunities for articulation due to the fact that they were only tested once after six weeks rather than once after two weeks and again after six weeks. Retention rates for this class were also very high. These results ,although far from conclusive would seem to downplay the importance of comprehensible output for retention of vocabulary items.

Long (1983), Varonis and Gass (1985) and others have suggested the importance of 'negotiated input' for language learning and acquisition. According to them, asking questions, reformulating, seeking clarification and other such conversational adjustments aid learning. Swain (1985) found this to be true when measuring grammatical competence but not sociolinguistic or discoursal competence. In this present study informants were not really tested on their ability to put new lexical items into correct grammatical, discoursal and sociolinguistic contexts. Recall and retention of meaning and pronunciation were the only aspects of the lexis to be tested. All the same , negotiation of input with the teacher or fellow students (which was categorised under the heading of classroom interaction) was not given as a reason for recall nearly as often as reasons listed in the superordinate category of interaction with the data. This raises the question: is it necessary for learners to interact with other learners or the teacher in order to notice, recall or retain new lexis (*interpersonal communication*) or can they interact with texts and data with similar or even better results? Similarly, can input be negotiated by oneself with texts rather than with other learners when considering ways that new lexis becomes memorable? The importance of such *intrapersonal communication* is espoused by Tarvin and Al Arishi (1991)

5.3.2 Interaction

Dick Allwright (1984) maintains that interaction provides learning opportunities or could even be learning itself. Reasons for recall related to *Classroom Interaction*   did not figure as the largest category of reasons for recall in this

study but were the second largest after *Interaction with the Data*.

Similarly the idea that learners who interact with other learners or the teacher will learn more in lessons (Seliger,1977) was not born out in terms of recall or retention in the present study. In fact, learners who did not participate in the classroom at all recalled above average numbers of lexical items whilst those who participated sometimes recalled fewer items. These results fit with Day's findings (1984) and Ellis's studies (1984a).

Allwright's idea of *spectator interaction* (1980) or the effectiveness of learners silently attending to the interaction of others (Ellis,1984a; Schumann,1977; Slimani,1987) was reflected in a small but nevertheless extant category of reasons in which learners said for the words *appear* and *insane* respectively things like:

> *because K said 'appear'.* (Appendix 2 Class C informant k)
> *after all the students give information about using other word ' appear'.* (Appendix 2 Class C informant j)

or:

> *in means not , the Spanish boy says 'insane' .(Appendix 2 Class C informant j)*

Five percent of the reasons given for recall by informants attributed recall and noticing to observation of interaction between fellow learners. This is not a great many but it does not mean that the importance of spectator interaction should be underestimated. Indeed, if the lessons had provided more formal opportunities for interaction between students, classroom interaction and in particular, spectator interaction , may have been cited more often by learners as

a reason for recall. Lessons did have stages where students were encouraged to interact (as can be seen in the earlier diagrams of classroom interaction patterns). They also interacted sporadically throughout each lesson but the lessons on the whole were teacher-fronted.

5.3.3 Uniformity of Vocabulary Uptake Across the Sample

Allwright also asks the question: 'Do learners learn what teachers teach?' (1984) and concludes that in fact they do not. He goes on to argue that 'each lesson is a different lesson for each learner' (1989, p.17). Informants in the present study recalled the same items of lexis even though none of the lessons set out to teach particular vocabulary items as such. Two of the lessons aimed to develop learner strategies for guessing meaning of unknown lexis from its context, one lesson half listening skills as its main focus with again some guessing of meaning of new lexis from context and the final lesson looked at vocabulary necessary for learners to understand a reading passage.

Ellis (1995), in a study similar to this one, found that learners did not report learning items of vocabulary that were not actually in the input. In other words, words that were recalled after the lesson had almost all featured in the lesson at some point. The present study reveals similar results to this, with only two of the recalled lexical items not being mentioned by the teacher or the learners. These two items were present in the texts given out in the lesson.

Just under half of the new lexis recalled by learners was recalled by more than 25% of learners in the study. This revealed quite a high level of uniformity in the lexis recalled and highlights the fact that certain environments in lessons can make vocabulary items more memorable for a good proportion of the class members and that learners do in fact uptake some vocabulary items presented to them by teachers. Vocabulary noticing, recalling and retaining is not a totally random and individualised process. In fact, in one lesson, over half of all the lexical items recalled by the informants were recalled by 25% or more of informants and one third of these were recalled by all informants.

Some of the factors which seemed to affect recall were whether or not the vocabulary item was mentioned, repeated or focused upon during the lesson; how many speaking turns were taken when discussing the vocabulary item and the fact that words were introduced and reintroduced at different stages of the lesson. Slimani (1987) found that repetition of the new language led to greater recall. This current study corroborated this finding and supports Dougherty's proposal (1991) that building redundancy or frequency into learning tasks makes language forms more salient to learners.

Slimani also looked at what she termed *topicalisation*, and concluded that more topicalisation of language meant more uptake. By topicalisation she referred to the process of making certain language items the focal point or topic of discussion. The present study takes this idea of 'topicalisation' and widens it somewhat to incorporate any form of paying attention to or 'focusing' upon

language. Schmidt (1990) suggested, perhaps not surprisingly, that it was necessary to 'pay attention to' or ' focus' upon language in order to learn it. 'Focus' was defined in the present study, as attention explicitly directed at a word. This included elicitations, responses, definitions and requests for information about a word. Focus was found to be an important factor in aiding recall in the present study, with those vocabulary items recalled the most often being focused upon a great deal. Slimani found that student focus was more effective than teacher focus in aiding uptake. This present study found any focus to be of equal value in aiding recall whether it be teacher focus or student focus.

The amount of turns during interaction taken by the teacher or the students when discussing vocabulary items seemed also to affect recall; with those words recalled the most being the subject of much turn taking. A large number of student turns in particular made for a high rate of recall.

There also appeared to be a weak link between introducing and reintroducing lexis at different stages of the lesson and recall. For example, the word *emerge* which came up in the listening exercise at the beginning of the lesson, was mentioned again by the teacher mid-way through the lesson and then was tested informally at the end of the lesson and was recalled by 60% of the learners in that sample. So it would appear that there were links between the high rates of vocabulary recall and 'mentioning', 'repeating', 'focusing', 'turn taking' and 'reintroducing' of vocabulary at different stages of the lesson.

However, looking more closely at the data, there seemed to be optimum levels of these variables linked to greater amounts of recall. In the case of repetition, focus and introduction/reintroduction of vocabulary, too much of these failed to have any positive effect on recall of lexis. In fact, words recalled by 75% to 100% of informants had been repeated, focused upon and introduced/reintroduced less often than those recalled by 50% to 74% of the learners in the study. In other words, those vocabulary items recalled neither the least nor the most often but somewhere in the middle had received the most repetition, focus and introduction/reintroduction during the lesson. It could be suggested then that there exists an optimum occurrence of these variables for new lexis to be noticed and recalled. Once this optimum is surpassed, saturation may occur and learners may shut down or lose interest, negating any positive influence these variables may have had.

In terms of turn taking, an optimum was also observed. Items recalled by 50% to 74% of informants had been the subject of more turn taking than those recalled by 75% or more of informants. Once an optimum amount of turn taking on the lexical item had taken place, recall was not affected positively. However, unlike in the previous scenario, greater amounts of turn taking did not affect recall negatively but rather ceased to affect it at all. An hypothesis here again might be that once an optimum number of turns has been taken over each new vocabulary item, the turn taking loses its effect and other variables come into play to push the word to further noticeability and recallability.

5.3.4 Long Term Retention

So far we have only talked about recall but what about long term retention of this recalled vocabulary? The rate of long term retention of lexis recalled by a quarter or more of informants was high overall with three groups tested after two weeks scoring a mean of 65% retention and all informants scoring 100% retention after six weeks. The other group were tested after six weeks only and scored a mean retention rate of 78%.

Ellis (1995) asked the question:' Do learners fail to report items they have learnt?' He found that learners were able to demonstrate in later post tests that they had learnt many more items than they were able to report immediately after treatment. In the present study this was not apparent as the research design did not lend itself to arriving at such conclusions but it was interesting to note that the three groups which were tested after two weeks showed much lower rates of retention than when they were tested six weeks later. Of course this could have been due to test effect or study done in the interim but the group which was only tested after six weeks still had a high rate of retention all be it not as high as the first three groups. These results were not supported by Ellis's study (1995) in which he found a low correlation between uptake and post-test scores.

Test effect and interim revision are therefore possibilities affecting the outcome but the former looks increasingly unlikely as a total explanation in the light of the results of the group tested once only after six weeks. Another explanation for the fact that retention rates were higher after a longer period of time is Lightbown's

theory (1983) that language needs an 'incubation period' before it can emerge into the learner's linguistic repertoire. Learners in this study were able to access some of the new lexis they had uptaken but perhaps there is a case for suggesting that a certain proportion of new language needs an incubation period before it can emerge or some lexical items are not retrieved until triggered by a stimulus some time later. This could also explain Ellis's results.

There was a high rate of retention of recalled words by learners in the current study after two weeks so it was difficult to draw any conclusions about those words that were not retained. Four of the items that seemed to escape retention had originally been recalled, according to the informants, because of reasons to do with classroom interaction. Two vocabulary items that were not retained had been recalled due to reasons to do with interaction with the data and the last two lexical items that were not retained were originally recalled due to the personal agenda of the learner. It might be tempting therefore to say that those recalled on the basis of classroom interaction were retained less often than those recalled for reasons related to interaction with the data or the learner's agenda. However, the sample is too small to make such a claim. A larger study could investigate this possibility though.

Overall, we can see that not only do certain lesson environments or series of events surrounding the introduction of new vocabulary enhance recall of new vocabulary but that these vocabulary items are also retained by learners over several weeks.

5.3.5 Variability of Vocabulary Uptake Across the Sample

Lessons can produce uniformity of vocabulary recall but this is certainly not the end of the story. The individual nature of vocabulary uptake and the variability in noticing and recalling was also made apparent in the present study.

Informants recalled an average of six vocabulary items each but this average hides the diversity of each questionnaire filled in. Some informants recalled only one new word while others recalled up to fifteen. It is always possible that the former informants found only one item of vocabulary in the lesson to be new for them. Gaies (1983) in his paper on classroom process research rejects as too simplistic the idea that any one teaching method can predict what will be learnt. Looking at the individuality of the amount of recall he would seem to be right to mistrust the idea that there are 'fail safe' teaching methods. In any one lesson, all the learners were subjected to the same teaching method but recalled different types and amounts of vocabulary.

Even between classes, results were different. In one class an average of eight words per student were recalled, in another nine words, another six words and one class only about four words per student. Long term retention of recalled words also varied amongst individuals with some learners recording 100% retention rates after two weeks and others recording 0%, hence the average of 65% (mentioned under uniformity of uptake) masks the diversity in retention rates for some individuals.

In terms of the individual nature of recall, 51% of the words recalled were recalled by less than a quarter of the learners. In other words, over half the learners in the study were recalling vocabulary items that were not the same as their fellow learners. Looking at individual lessons, as few as 14% of the words recalled in class C were recalled by 25% to 100% of the learners in that class. This is contrasted with 60% of the words recalled in class A being recalled by 25% to 100% of the class. So some classes were more individual in the vocabulary items that they recalled from their lessons whereas others were more uniform.

Allwright (1984) was perhaps right then to espouse the idea that learning opportunities can present themselves at any time for any individual during a lesson and Ellis(1985) was also right to question the idea that a teacher can set a specific agenda for individual learning. However, there can be no denying that, as seen in the previous section of this study, certain lesson contexts or series of events in lessons may ensure a more homogenous outcome in terms of vocabulary recall than others.

5.3.6 Personal Agendas of the Learners

Schumann (1977) might attribute the fact that there was such variability in the words recalled from each lesson to his notion that each learner has their own agenda for learning. Breen (1985, p.137) talks about ' how a learner selectively perceives parts of linguistic data as meaningful and worth acting upon...'. In other words students choose what they think they need or would like to learn

and may disregard everything else. In this study only 9% of the reasons given by learners for recall were explicitly related to personal or individual agendas for learning. Informants gave comments such as those shown below for the words *lyric* and *ogle* respectively:

and I try to remember...;(Appendix 2 Class D informant w)

because in the first I think remember the word...I mean like we must learn subject.(Appendix 2 Class A informant b).

So, although not identified as a major factor in recall, the learners' agenda was a variable which did reveal itself in the present study.

Other variables mentioned by Schumann, such as being comfortable in your own home, were not given by informants as reasons for recall. However this is not surprising as Schumann's learners were asked why they thought learning had not taken place rather than why it had. Learners in this present study were only asked to reflect upon what did facilitate noticing or recall of new vocabulary items not what did not.

Despite some parallels then between Schumann's case studies and this study in the sense that both studies asked learners to reflect and comment upon their own language learning experience, Schumann's study relied upon general insights into language learning recorded in a diary well after the event while this current study relied upon immediate reflection after a lesson about particular events in the lesson. It might be expected then that results in the two studies would be quite different. With a separation in time from the events of the

classroom learners may have had to rely more upon general reflections in Schumann's study. In this present study, the immediacy of the feedback allowed learners to be fairly precise in their reflections and pinpoint the exact moments when a word became noticeable for them.

5.3.7 Profiles of the Learners

The present study was cross-sectional in that twenty four learners were looked at quite closely over the eight week period but the same learners were not looked at again in different lessons at a later time. Because of this no strong claims regarding learner strategies or preferred learning styles can be made but we can focus on the learner as an individual rather than part of the group as a whole. Looking at each profile, it seems that learners were quite diverse in the reasons they were giving for recall of new vocabulary. Sometimes an individual would give reasons for recalling different words that fell into all the four categories: *Classroom Interaction, Interaction with the Data, Personal Agenda* and *Previous Learning.* Sometimes reasons fell into three of the four categories or two of the categories equally. In fact, no informant gave only one kind of reason for recall of all the vocabulary items. However, one informant did mention things like 'Primacy' or the fact that the word appeared at the beginning of an exercise or an activity as the reason for recall more often than other reasons. Another gave 'Dictionary Use' quite a lot and one other offered 'Teacher Illustrations' more often than other reasons.

Oxford and Crookall (1989) outlined seven main kinds of strategy used by

learners: *cognitive, compensation, communication, metacognitive, social, affective* and *memory*. Evidence of the use of these strategies was revealed by learner comments as they reflected upon the events of the lesson. Learners mentioned associations that they had made between words and aspects of their life or other words, highlighting the use of a form of memory strategy. Compensation strategies such as guessing, social strategies such as *eavesdropping* and communication strategies such as asking another student for information were also identified. Students admitted recording new items of vocabulary as an aid to memory; a metacognitive strategy. Other strategies such as affective strategies and cognitive strategies were not identified in the comments made by learners probably because affective strategies are quite personal and cognitive strategies may not be conscious.

The word ' strategy' implies some sort of conscious behaviour or a regular plan of action but this study only looked at reasons given by a group of informants on one particular occasion. It was concerned with what was going on inside the learner, the word itself and the situation generally.

Most informants gave reasons for recall of words linked to the category of interaction with the data. This was followed by classroom interaction. This pattern mirrored the profile of the sample as a whole. Without another lesson at least to track these same students to see if these responses remained constant over several lessons, no claims about learner styles can really be made. At this point all that can be said is that the variety of different reasons given by each

individual learner for recall highlights the need to concentrate on what is happening in each lesson at any particular moment, the importance of each different classroom context to each lesson and learner differences in approaches to vocabulary learning. Learner strategies and styles may have an influence on uptake but how learning opportunities present themselves in each lesson to each learner appears to be much more multifaceted.

Of course, key factors in the equation can be the individual's motivation (Lambert and Gardner, 1972), anxiety levels (Libit, Kent and Curran cited in Stevick, 1976, p.98), anomie (Durkheim, 1897), ego (Acton,1984; Berne,1964), beliefs about learning and teaching, age, aptitude, general state of health and so on. One informant managed to recall only two new words from the lesson. One word was copied from the whiteboard and the other was present in another part of the text that had been given out. It was not surprising that the response was so weak as the learner had spent almost the entire lesson on the verge of falling asleep after having a very late night!

Lack of motivation is a condition which can exist amongst some of the learners at the centre where this study was conducted, often because students have been studying at the centre for a long time and have lost sight of their reasons for being there. Some students are in classes because their parents want them to be and therefore their motivation is not their own. Others have not progressed as quickly as they might have hoped and are experiencing loss of ego as a result. All were probably experiencing anomie and some form of homesickness

at the time of this study and perhaps some form of anxiety about being videoed and tested for the research project.

The background of the students was mostly Asian which means that in the majority of cases learners would have been used to traditional teaching styles where lessons are teacher-fronted, interaction between students is minimal and students are encouraged to be 'reproductive' rather than 'analytical' in their responses to information conveyed to them (Ballard and Clanchy, 1988). With such a background learners may have failed to recognise the role of classroom interaction or personal agendas in learning and therefore when asked what caused words to be noticeable for them, they may automatically have given reasons such as 'Using a Dictionary' or 'The Materials'. This is a phenomena that definitely needs further investigation by conducting the same research on learners with different backgrounds. It could be argued even so, that all learners who have been schooled before the 1980s might have the same preconceptions.

The backgrounds of the learners were a major consideration when examining the reasons given for recall of new vocabulary. However, those reasons for recall that did pertain to the classroom interaction were checked and confirmed by the researcher in the transcripts of the videoed lessons and all but one account proved to be correct. Therefore, it is safe to assume that if all of the comments related to classroom interaction were legitimate, those relating to other categories of reason were also legitimate.

Similarly, the majority of learners were learners who had experienced at least 10 weeks of tuition in the 'communicative' style of teaching at the centre prior to these lessons. They were used to being asked to interact together and had been indoctrinated with the value of such activity to learning a language.

Finally, as the style of the lessons observed by the researcher for this study was teacher-fronted and not formally interactive (see Appendix 4 for interaction patterns), it is doubtful whether learners would have perceived a lot of difference between a lot of lessons in their own countries and these particular lessons.

Age, aptitude and general state of health were much the same across the sample with all the learners being between 18 and 40, quite a high level of English proficiency and generally healthy enough to come and live abroad for six months. These variables were not controlled for in this study so any effects that they might have had on the findings of this study cannot be reported upon. However, future studies could conduct the same study with learners of different age groups and level of English proficiency.

Despite the possible presence of all of these variables, informants generally managed to perform very well in terms of recalling new vocabulary items and retaining them over several weeks. Brown(1983) would explain this with his suggestion that any group of learners of comparable levels of formal education, health, vigour and age will often have equal levels of motivation. However, the overall parity of learner circumstances in this particular sample of learners

should be taken into account when assessing the results of the study.

5.4 Overview of the Chapter

Conducting Research into Vocabulary Learning: Methodological Insights

Learners as Resources

The current study found learners to be very astute when it came to reflecting upon events surrounding the recall of new vocabulary items. Observation is still a much needed tool for tracking classroom interaction however and especially for verifying comments made by learners about events occurring in the classroom interaction.

Qualitative and Quantitative Approaches

A qualitative approach to data collection, which consisted of very open-ended questionnaires and interviews, enabled the researcher to tap into a rich source of data which might not otherwise have been procured. The fluidity and non-discreteness of categories of reasons for recall was highlighted with this approach.

Cross-sectional and Longitudinal Approaches

Incorporating aspects of both approaches into a single study can help overcome the problems of focusing too closely on too few learners and hence having limited generalisability and being so 'one shot' or 'snap shot' on a large group of learners that the findings have little substance.

Psycholinguistic Considerations

1. Baddeley (1974) suggested that the shorter the sound of the word, the greater the number of such words that could be retained in short term memory. This current study did not concur with this finding.

2. Higa (1965) and Granger (1993) found nouns to be recalled more often than other parts of speech. This current study also found this, although there was some variability.

3. Higa also found words with negative connotations to be recalled less often than words with neutral connotations and concrete words to be recalled more often than abstract words. This current study mirrored the first of Higa's findings but not the second.

4. *Potential* vocabulary noticed by Berman, Buchbinder and Beznedeznych (1968) was documented in the current study suggesting the learning of vocabulary is a developmental process. Learners also reported words they had seen before but not yet mastered.

5. Learners did not report recalling new words because they were phonologically or orthographically similar to words in their own language very often, as Ludwig (1984), Beaton and Ellis (1993) predicted they would.

6. Word characteristics were not reported by learners as being very

important as an aid to recall.

7.   Many factors were at play in the classroom environment to influence the recall of vocabulary that might not be at play in an experimental setting.

Implications for Language Learning and Retention

Input

1.   In order for learners to notice and recall new vocabulary there needs to be an element of incomprehensibility in the words they are presented with followed by a reflective period. Using a dictionary may provide the mental effort needed to make words recallable.

2.   Further studies are needed to ascertain whether *incomprehensible input* (White, 1987a) in the form of new vocabulary becomes incomprehensible output.

3.   In this study the importance of *comprehensible output* (Swain, 1985) to learning seemed to be downplayed.

4.   *Negotiated input* (Long,1983b) was not seen as key to the recall of new vocabulary in terms of the learner negotiating with the teacher or other students in the class. However, it could be argued that the learner negotiated with self while interacting with the data and thus *intrapersonal communication* (Tarvin and Al Arishi, 1991) was as important as *interpersonal communication*.

Interaction

1. Classroom interaction was not central to reasons given by learners for recall of new words.

2. Learners who did not participate at all recalled equal or greater numbers of words which runs contrary to Seliger's hypothesis (1977) but is in line with Day's and Ellis's hypothesis (1984 and 1984a respectively).

3. Allwright's idea (1980) about learners learning by listening to other learners interacting was born out to a small extent in this current study.

Uniformity of Vocabulary Uptake Across the Sample

1. Like Ellis (1995), this study found that learners did not report learning words which were not in the input of the lesson.

2. Allwright asked whether learners learnt what teachers taught. In this instance, approximately half of the words recalled were recalled uniformly by a number of learners (although individual classes differed in this respect).

3. Certain features of the discourse of the classroom interaction in optimum amounts seemed to be linked with enhanced uniform recall of new vocabulary. These results were in line with Slimani's study (1987) which claimed that repetition of new language, and *topicalisation* ('focusing' in this case) of that language, led to

greater uptake.

Slimani, however, found student topicalisation to be more effective than teacher topicalisation for uptake. This study did not find this. She also reported that more of the presence of these variables led to greater uptake of new language. In this study, after too much of these variables was present on the new word, recall seemed to remain unaffected or became negatively affected.

Other features of the interaction in this current study to be linked positively with uniform recall of new words , were 'mentioning', 'turn taking' and 'introducing and reintroducing' new words at different stages of the lesson (although numbers with the latter were too small to be definitive). Again too much of these variables produced either a negative effect on recall or no effect at all.

Long Term Retention

1. Unlike Ellis (1995), this current study found retention rates of new words to be high. The design of the study did not lend itself to testing if learners recalled more words than they reported learning initially. There was no case for stating that words recalled due to certain events in the lesson were more retainable than those recalled due to other circumstances.

Variability of Vocabulary Uptake Across the Sample

1. The individual nature of vocabulary recall was made apparent in this study with approximately half of the words recalled being variable uptake (individual classes differed in this respect) and individual amounts of vocabulary recalled varying greatly. It seems, that as Gaies (1983) suggests, it is too simplistic to attribute teaching method to enhanced recall.

2. Although some factors in the lessons in this study may have been linked to greater amounts of uniform recall, learning opportunities presented themselves at any time to the learner regardless of the teacher's agenda. These findings are in line with those of Allwright (1984) and Ellis (1985).

Personal Agendas of the Learners

1. Schumann (1977) and Breen (1985) attributed variability in recall of language to the fact that learners select what they will learn. The 'personal agenda' of the learner did reveal itself as a variable in the current study although it was not reported by learners as a major factor affecting recall of new vocabulary.

Profiles of the Learners

1. Learners were diverse in the reasons they gave for recall of new words. Many behaviours, responses or strategies were identified as responsible for recall of new words by each learner, highlighting

the need for researchers to see each learner and each lesson as unique. However, the reasons for recall given the most often by individual learners were related to *Interaction with the Data,* followed by *Classroom Interaction.*

2.   Of the seven main learner strategies outlined by Oxford and Crookall (1989), learners gave reasons for recall which highlighted their use of metacognitive, compensation, communication, social and memory strategies. Examples of affective and cognitive strategies could not be identified through the current research design.

3.   Lack of motivation (Lambert and Gardner,1972), anxiety (Libit, Kent and Curan cited in Stevick, 1976), ego (Acton,1984 and Benne,1964) and anomie (Durkheim, 1897) were all variables that may have affected learner performance and responses in this study. Beliefs about teaching and learning, age, aptitude and state of health were fairly standard across the sample as the majority of informants were Asian learners, between the ages of 18 and 40, with quite a high level of English proficiency and generally in good health. These variables may have affected findings and therefore future studies should attempt to look at different populations of learners to this.

To sum up then, the issues discussed in this chapter were:

1.   The value of learners as resources when it comes to conducting research to which they are central.

2. Psycholinguistic perspectives on vocabulary learning in terms of the kinds of words recalled by learners and the fact that experimental research in this area may produce quite different results to those obtained from classroom research.

3. The positive role of input (and in particular *incomprehensible input*) and the more limited role of interaction in the effective recall and retention of second language vocabulary.

4. The large amount of variability (individuality) and uniformity of vocabulary learning in lessons despite the teacher's agenda.

5. The ability of learners to retain words that are recalled from lessons over long periods of time.

6. The positive role of explicitness and paying attention to new words as an aid to noticing, recalling and retaining new words.

In the next and final chapter, the pedagogical implications of the points made throughout the thesis are discussed in terms of the selection of materials and appropriate teaching methodologies by the teacher. The last few pages of the thesis see the current researcher attempting to draw together all the information reported so far and suggesting the implications of findings from this work for future research.

Chapter 6 - *Conclusions and Recommendations*

6.1 Brief Overview of the Findings

The starting point for this thesis was the researcher wondering

What vocabulary do adult EL learners recall and retain from lessons?

Why do they recall the vocabulary that they do?

Answers to these questions ranged from psycholinguistic reasons, to methodological reasons, to reasons connected to the nature of the classroom discourse.

Words which were made explicit or brought to the conscious attention of the learner, either through interaction with the data, or to a lesser extent classroom interaction, were the words that seemed to be recalled and retained by EL learners from lessons. One of the key issues discussed earlier in other chapters is the issue of *incidental learning* versus *conscious* learning or as Nation terms it 'meaning focused' learning versus 'language focused learning'. He reminds us that, although learners can uptake as much as 15% of vocabulary that they are exposed to in texts without any attention being drawn to those vocabulary items, as much as 40% of words specifically focused upon in texts can be acquired (Paper given at the ELICOS conference, Perth,1995). In the present study, it was seen that vocabulary that had been made explicit was noticed, recalled and retained by learners. This was seen not only by looking closely at the transcripts of the classroom discourse (i.e. from an observer's point of view) but by the very

fact that learners themselves could identify the exact events surrounding the appearance of the word in the lesson which led to the recall of that word. If uptake had been unconscious such identification would not have been possible. Attention paid to vocabulary, however, if 'overdone' produced a negative or zero effect on the recall of new words.

On a more psycholinguistic note, abstract, neutral nouns were recalled the most often in terms of word types and in a few instances learners were very creative with new words adding different endings or beginnings in their efforts to assimilate the new words into their repertoire.

As far as the *'what'* part of the question was concerned a distinction was made between vocabulary items that were noticed collectively by the group and those recalled by only one or two individuals. The analysis highlighted the percentage of words recalled by 25% or more of learners and those recalled by fewer than 25% of the learners in an attempt to show the degree of variability and uniformity of recall of new vocabulary items in the same lessons. Approximately half of the new words in the lessons were recalled uniformly by learners and half were recalled by only one or two individuals for each word.

It seemed that factors such as mentioning, repetition, focusing, introducing and reintroducing vocabulary and tum taking were at work in the lesson, causing learners to join with other learners in recalling the same words. However, too many of these variables seemed to be linked negatively with recall or produce

no difference in recall. At the same time, some learners operated totally separately and recalled very different words to their classmates. The results of these findings were presented as something of a dichotomy but in fact the two are closely interlinked.

Breen (1985, p.148) has pointed out, that individual and collective experiences in lessons cannot always be totally separated. He maintains that even individual achievements have been communally moulded and that the classroom group jointly constructs lessons, influencing what becomes available to be learnt. In this way, even those words encountered by only one learner have often been noticed by that learner because of circumstances created by the group.

All but two of the new words recalled by learners featured in the discourse of the lesson at some point. Words were repeated, focused upon and generally made explicit by participants in the lesson. There is no doubt then that what became available to be noticed was shaped collectively by the group, however, responses and strategies brought into play by learners once the vocabulary items had been made explicit in some way were quite individual. Learners made hypotheses, negotiated meaning with themselves or made personal associations with the new words. In other words, it was just as necessary for learners to enter into a private discourse with themselves in order to be able to recall new words as it was for them to be collectively involved in creating what was to be learnt. The ability of the learners in the current study to recall vocabulary solely from interacting with the data available to them, fits with the fact that many L2

learners arrive in classes having a very good command of a second language and claim to have taught themselves simply with the aid of a dictionary or a course book.

The importance of dictionary use when learning a new language was highlighted by the number of learners that gave this strategy as their reason for recalling new vocabulary from the lessons. Another reason for recall given quite often by learners was initial incomprehensibility of the new word and the subsequent strategy of hypothesising to overcome this gap in learner knowledge. When learners were proved wrong in their guesses, new words were made even more recallable. Such strategies may be restricted to learners of certain L2 levels of proficiency, however. Oxford and Crookall (1989, p.414) noted that students at higher levels of L2 proficiency used strategies quite differently to students at lower course levels. They went on to suggest that different strategies are often utilised together for optimal results.

In the current study, learners showed themselves capable of employing a number of strategies in order to recall new vocabulary. Some of these strategies made use of the collective classroom situation but the majority made use of individual strategies. Reasons for recall given the most often were linked to the idea of the individual interacting with the data available in the lesson. Many studies have also shown that certain teaching approaches are more effective with learners of low level L2 proficiency than with learners of high level L2 proficiency. Thus it may be that classroom interaction is a key aid to recall with

learners with a beginner level of English but not so effective with learners of a higher level of English. All of the learners in the current study were upper intermediate to advanced level of English proficiency and they reported interaction with the data to be more important as an aid to recall of new vocabulary than classroom interaction.

6.2 Pedagogical Implications

6.2.1 Materials

There were two trends established in the findings of this study. The first suggested that learners could be guided towards recalling the same language items if certain things in the classroom context such as mentioning, repetition, focus and turn taking on vocabulary items were controlled and kept at optimum levels (i.e. not taken past the point where saturation set in). The second suggested that, even if this was done, learners would still recall some quite different vocabulary to that of their fellow learners from the same lesson.

With this in mind then, it would seem logical to suggest that providing learners with varied and contextually rich input will maximise the chances that different lexis from this input will be noticed and recalled. Input should not be totally comprehensible for the learner and this is particularly true if learners are to notice and recall new items of vocabulary. Nation (1995) has reported that for learners to be able to make hypotheses about new words when reading texts

they need to understand 90% of the vocabulary in the surrounding text. Similarly, some background knowledge about the text aids reading skills. However, in order for learners to learn new words, he claims that the less background knowledge they have the more words they learn.

The emphasis is back on input and the classroom needs to be 'input rich', as Lewis (1993, p. 27) suggests, if learners are to maximise their chances of noticing and recalling different vocabulary items. If we consider the importance that some learners placed upon the act of guessing or hypothesising as an aid to recall, it follows that materials can be interpreted with only partial comprehension and be of as much benefit or perhaps more to vocabulary development. Input that has been finely tuned' (at or below the level of the learner) and lessons that are organised according to the notion that ' what-you-meet-you -master' (Lewis, 1993, p. 27), restrict learners to one course of action, cutting out all extra information failing to provide learners with a range of learning opportunities. 'Roughly tuned' input or input that is at or above the level of the learner, has at least a small element of incomprehensibility which requires learners to expend mental effort decoding the message. This effort on the part of the learner seems necessary if noticing and recall of new language is to take place.

Texts or input should not be too graded or too comprehensible but rather the tasks required should be graded for the learner. With mostly manageable tasks but a slightly incomprehensible text, learners can remain motivated by their

ability to make sense of the text in terms of their ability to complete the tasks and at the same time be free to notice vocabulary items unknown to them. The process of vocabulary development may start with the learner noticing a new vocabulary item while involved in the other tasks, guessing its meaning, looking in the dictionary, becoming confused and finally asking someone outside of the class to clarify.

In terms of teaching order for vocabulary items and construction of a lexical syllabus it seems that we can abandon the idea of teaching vocabulary in any particular order of complexity or giving priority to certain parts of speech at least at more advanced levels as, either the learners themselves will decide what is learnt or the classroom environment will make certain vocabulary items more noticeable or recallable than others.

Dictionaries featured more often than other reasons given for recall of new vocabulary in this current study. This highlights the importance of having comprehensive dictionaries available to learners. A lot of time has been devoted to developing course books and teaching resource books and the time has come to expend more energy on developing good learner resource books such as dictionaries.

If learners are to even begin building a vocabulary that will give them the ability to communicate in a variety of situations they must be given the opportunity to teach themselves. The Lexical Approach advocated by Lewis (1993) sees lexis

as central to any syllabus. Learners can only hope to develop a vocabulary repertoire similar to that of a native speaker if this lexis is made available to them and highlighted in good dictionaries. Having or developing good dictionary skills is also crucial to process of second language vocabulary development.

6.2.2 Methodology

All of the vocabulary items recalled by the greater part of the learners, bar one, had been focused upon in some way either by the teacher or the learner during the lesson. This would seem to present an argument against the idea that the majority of vocabulary is acquired incidentally or unconsciously learnt. It indicates the necessity for instruction or at the very least some way of directing attention to the new vocabulary items by encouraging a process of learner alertness, orientation and detection (Tomlin and Villa,1994).

Advocating 'conscious learning' goes against Krashen's idea that all you need is comprehensible input which will come together with a specified internal language acquisition device in order for language to be acquired. The opposing theory to this is *The Skill building Hypothesis*. The strong version of this hypothesis states that all our competence in language comes from skill building through drills, exercises and practice. Although the present study claims that it is necessary to focus on or pay attention to vocabulary in order to notice and recall it, it does not suggest that this must involve any of those steps suggested by the skill building hypothesis. However, building a certain amount of

redundancy, focus and frequency of exposure into lessons is one way of ensuring that some learners uptake some of the same vocabulary items. This should not be overdone though. Too much focus and repetition can be counter-productive as we saw from the results of the study. Most importantly the goal of 'deep processing' of vocabulary items should be achieved by encouraging learners to expend ' mental effort on learning' (Stahl, 1986, p.664).

If we are saying that vocabulary needs to made to stand out from its context then we are saying that words also need to be 'distinctive' in some way. This theory of distinctiveness was put forward by Hunt and Mitchell (1982). Tinkham (1993) also corroborated this idea with his studies which showed that the greater the semantic or syntactic similarity of words, the less likely they are to be recalled by learners. Words arising in the lessons in this study did not present themselves in semantic clusters or lexical sets on the whole. There was often very little in common, in terms of meaning, amongst words recalled by informants. During the interviews informants commented that distinctive spellings, pronunciations or meanings of certain words had caused them to notice and recall these words. This fits with Tinkham's research in which he found that learners found it much easier to recall words that were different in meaning than those that had meaning in common with each other (e.g. all the words for fruit).

Making lexis distinctive or paying attention to it during a lesson is one way of ensuring recall. This aim can be achieved using many different techniques.

Interaction involving the word is one way to cause certain words to stand out from other words. Learners gave classroom interaction as a reason for recall of new lexis about 25% of the time; second only to interaction with the data or texts. In particular, some turn taking on vocabulary items but not too much seemed to have a positive effect on recall. Therefore optimising interaction opportunities may facilitate greater recall of vocabulary. It should be kept in mind, however, that not every learner needs to participate in this interaction in order to benefit from it. This was highlighted in the study by the fact that some learners did not participate at all in the lesson but still managed to recall large numbers of new words.

Learners' placed a lot of importance on the memorability of activities in which they made errors and then learnt the correct answers later. It would seem that meaningful interaction or interaction in which there are genuine information gaps, is beneficial to recall. This interaction does not mean the teacher interrupting the student to give correction (Dekeyser, 1993 found this to have no significant effect on student achievement or proficiency) but rather the student receiving feedback either from the teacher or other students or some other source at some time during the lesson.

Classroom interaction, however, is certainly not the only contributor to effective recall of vocabulary as mentioned earlier. Some learners identified the benefits of simply 'eavesdropping' on the conversations and questions of other learners (all be it not that often). Some learners did not seem to benefit particularly from

interaction and still others recalled new vocabulary very well without engaging in interaction at all (results that fit with Day's research investigating the performance of *High Input Generators* (HIGs) in lessons (1984)).

If interaction is not the key factor to recall then what is? A variable common to both classroom interaction and interaction with the data is the act of not knowing and the resulting steps taken in order to solve the mystery or unravel the confusion. This could be even more important than the subsequent input. It is this gap in knowledge or confusion of ideas that causes the learner to attend to the interaction of other classmates, to ask other classmates or the teacher or to reflect quietly to him or herself (in other words, *intrapersonal* communication).

Whether classroom interaction is optimised or not, what is important are the kinds of learning tasks where learners are encouraged to find their own way between incomprehensibility and comprehensibility. Problem solving, guessing and seeking enlightenment all seem to involve high levels of cognition on the part of the learner which make new vocabulary memorable. Once this mental effort has been expended and the learner has interacted with the data or other class members, other variables such as the personal agenda of the learner may come into play. The teacher should be seen as a resource just like a dictionary or a text book or another student. Students should be given the time and the latitude to go through the necessary stages of confusion and searching first.

New vocabulary is uptaken not only through verbal interaction with fellow

students but by quiet reflection and involvement in solitary tasks. Leaving learners alone to tackle tasks with all the resources at their disposal also gives them the scope to bring their own individual learning strategies to the task whether they be making their own associations, studying the characteristics of the word, or simply repeating the word over and over again.

The act of guessing wrongly seemed to feature prominently in the reasons learners' gave for recall of new vocabulary items as did dictionary use. Prior studies on the benefits of guessing the meaning of vocabulary from its linguistic context (Li,1987; Mondria and Wit de Boer,1991; Williamson,1989) have disagreed over the effectiveness of this technique in aiding retention. Cohen and Aphek(1980) found that students at beginner level recalled more words from lists of vocabulary than contextualised vocabulary. They put forward the idea that more proficient learners were able to use linguistic context to their advantage.

In the present study, the linguistic contexts surrounding the new items of vocabulary were identified as directly aiding recall of vocabulary, in four out of the 104 reasons given. Nine other reasons pertained to the fact that incorrect guesses were made about the new word. Although not stated directly, we could assume that context played some role in causing learners to guess wrongly. One reason given mentioned guessing meaning from the sentence surrounding the word. As can be seen, the use of context as an aid to understanding or recall of new vocabulary, was not overwhelmingly present in this current study as far as reasons for recall by the learners were concerned.

Presenting words in isolation is part of the keyword method mentioned earlier on in Chapter II. Learners are encouraged to visualise in their minds the new word interacting with an associated object. Words in isolation and the images associated with these words form the basis for this method. Learners in this present study mentioned association of the word with their own experience only 5 out of 104 times. It seems this technique might be an effective tool for learners but only if time was spent training them how to use it as it did not seem to be a widespread learner strategy. Furthermore, in the absence of any context, the stimulation given to learners in terms of guessing and hypothesising meaning would have to be forfeited.

Frequency of exposure to new words was seen to be an active variable when it came to recall of new words. The effectiveness of repetition was seen to depend upon optimum amounts of exposure, i.e. not too little and not too much. There would seem to be a case then for reinstating the idea of drill and practice with new vocabulary items providing it is not overdone.

The idea of frequency of exposure or revision of new vocabulary fits well with the fact that vocabulary acquisition was seen to be a somewhat developmental process. Although new words may be noticed and recalled from lessons because they are made explicit in some way this does not mean that they will be acquired immediately afterwards. This was evident from the way in which learners recalled parts of words or claimed to have seen words before but not known exactly what they meant. This developmental process suggests the

necessity for vocabulary to be planned into courses and syllabuses in order to ensure that learners are exposed to new words several times.

To sum up, the original impetus behind this study was a desire to know if vocabulary elective classes offered at the centre where this study was conducted were at all effective in terms of recall and retention of vocabulary. The classes used in the study were not in fact vocabulary classes as such, but normal classes in which vocabulary came up while other skills were being practised. Vocabulary classes, however, were organised in much the same way with learners involved in listening, reading, speaking and writing activities as well as vocabulary input. No single particular teaching method was employed but some lessons did make use of the techniques of focusing, mentioning, repeating, taking turns when discussing vocabulary items and introducing and reintroducing new words. Many other strategies and reasons for recall were identified by the learners in each lesson indicating the importance of taking an eclectic approach to vocabulary learning and exposing learners to many varied techniques, texts and classroom contexts. It is also important to allow the learners some space and individuality in the vocabulary learning process by providing choices of input and encouraging them to take note of what works for them in terms of procedures or strategies. The learner as an important source of feedback for the teacher should be recognised. Asking them on a regular basis what they feel works for them or even getting into the habit of asking them what processes they were aware of going through during certain activities or exercises (especially with students of a higher proficiency in English) can only

prove beneficial to the way in which lessons are prepared and executed.

Because of the variety of learner styles and the effectiveness of many different approaches to vocabulary learning at different times in different lessons, teachers should strive for what Richards and Rodgers (1993) have referred to as 'informed eclecticism' in their lessons. In other words, rather than merely moving from activity to activity, in an effort to provide eclecticism in the lesson, teachers need to have foremost in their minds why they are doing something and tailor the task accordingly. Fully informed about what it is they hope to facilitate in their lesson, teachers can use any approach that seems to help achieve this aim. This is particularly so in the case of teaching vocabulary.

The main overarching idea is the importance of recognising that each learner is different, with his or her own individual learning styles, strategies and techniques. This individuality can only be catered for by the teacher making a conscious decision to employ a variety of methods and techniques for teaching vocabulary in each lesson. This does not discount the possibility of reinstating approaches, procedures and techniques relegated to the archives by a lot of teachers because they are purported to be out of line with current second language learning theories. For example, the benefits of repetition of vocabulary to the recall of new vocabulary items, as seen in this current study, suggests that the use of some audiolingual type techniques can be beneficial to the learning of vocabulary. Such activities as reading aloud which have suffered a lowering of status in some communicative classrooms, may be reinstated as valuable aids to the recall of new vocabulary in some situations.

6.3 Implications for Future Research

6.3.1 Further Avenues of Study

Although enlightening, this study only really gave insights into factors affecting the recall of new words by upper intermediate to advanced English proficiency learners. As many current researchers now suggest that different skills and strategies are used by low level proficiency language learners to high level proficiency language learners, it would be interesting to compare the reasons for recall given by these two groups of learners. The pedagogical implications could then be highlighted and compared.

Any studies conducted by this researcher in the future therefore would ideally be with students of a lower level of English proficiency, making use of translation from L1 to L2 in the instructions to tasks to overcome the problems of accurate informant understanding and possibly using translation to overcome the difficulties that could be experienced by informants when trying to articulate in a language other than L1.

For the future, it would also be beneficial to attempt to interview and test more informants over a longer period of time than eight weeks and hence build up an even more comprehensive bank of data concerning learner retention of new vocabulary. In this way validity with a much larger representative sample could

be established. Choosing learners who were enrolled in much longer courses at the centre would also enable multiple observations and interviews with the same informants without being too disruptive to their course of study. In this way the study would gain a much more longitudinal perspective.

As well as looking at learners with different levels of English proficiency, the study could be redesigned slightly in order to make it possible to look at lessons that were more student-centred, with students performing tasks in small groups. Several video cameras could be set up in order to capture small group interaction within several groups in the classroom. With increased student to student interaction learners may identify this interaction more often as a variable affecting recall of new words. A comparison of reasons given for recall by informants in the more teacher-centred lessons and those reasons given in more student-centred lessons could then be conducted.

6.3.2 Future Research

Learners' reflections were used very effectively in this study and learners generally proved to be a valuable resource when trying to piece together a picture of unobservable lesson events. Lewis (1993) has some reservations about the ability of learners to reflect accurately or informatively upon their own learning performance. Slimani (1989) also had problems getting informants to provide accurate reflections about events during lessons. This current study, however, found learners to be very capable and accurate in their ability to provide the researcher with details pertaining to recall of certain items of vocabulary. Furthermore, it is the opinion of the researcher, after involving the

learners in self reflection, that the teacher can only know what strategies students are using in lessons if they conduct research along the same lines as the current study, using learners as resources.

A further recommendation for the future, would be more research devoted to looking at the acquisition of vocabulary specifically as opposed to language acquisition generally. Many of the hypotheses made about SLA to date concentrate on the acquisition of grammatical rules or syntax. Just as pronunciation has been shown to be acquired differently to grammatical rules through studies designed to research second language pronunciation only, the acquisition of second language vocabulary needs to be researched separately to other components of the second language. We need to move out of the parameters set by research into SLA generally and be prepared to find that learning vocabulary may be a very different exercise. Nation (1995), for example, as mentioned earlier in the chapter, reports that although providing learners with background knowledge before asking them to read something is beneficial to reading skills, in fact, providing no background knowledge at all to learners is beneficial to recall of vocabulary from the text and hence vocabulary development. This fits with the claim made by the present researcher and White (1987a) that *incomprehensibility* can be an aid to vocabulary development.

The spotlight has been turned on to vocabulary acquisition in recent times. The hope of this researcher is that this renewed attention to vocabulary will continue and that through trusting learners to inform us about the processes they go

through when learning second language vocabulary. A much more detailed picture can be drawn not of SLA generally but of second language vocabulary acquisition in particular.

6.4 Overview of the Chapter

Pedagogical Implications

Materials

1. Input should be varied and contextually rich.

2. There should be a certain amount incomprehensibility of the material in order for the learner to be pushed to expend mental effort on learning new vocabulary in the material.

3. Tasks not texts should be graded to suit the language level of the learner.

4. Vocabulary does not need to be taught according to a preordained order or all of one part of speech before another.

5. Good dictionaries and accompanying dictionary skills are essential for the learning of vocabulary.

Methodology

1. Learners need to be made aware of vocabulary items in order for them to be recalled. This can be done by facilitating learner alertness, orientation and detection (Tomlin and Villa,1994).

2. Lessons should aim to have redundancy and frequency of focus built in. This can include drill and practice but this should not be overdone.

3. Deep processing of vocabulary should be facilitated by encouraging mental effort on the part of learners.

4. Vocabulary needs to be made distinctive in order for it to be noticed and recalled. Semantic difference between words (as Tinkham,1993, points out), aids recall.

5. Interaction around a word, can aid recall. However, learners do not necessarily have to be the ones participating in the interaction in order to benefit from it in terms of recalling vocabulary.

6. Information gap type activities or problem solving activities where the learner starts from a position of incomprehensibility and is allocated time by the teacher to slowly work through to a position of comprehensibility are the activities recommended to aid recall of new words.

7. Learners should be given the opportunity to use their own strategies when learning new vocabulary.

8. Guessing the meaning of new words from the surrounding context could be an aid to recall for higher level second language learners.

9. Teaching learners how to 'associate' words as in the *Keyword Method* could provide them with a further strategy but not many of the learners in this study appeared to utilise this strategy

unprompted.

10. Vocabulary tuition needs to be planned into English courses.

11. Teaching methods need to be eclectic when it comes to teaching vocabulary. Teachers should not be afraid to reinstate 'old' methods/ techniques of instruction if the decision to do so is 'informed' (Richards and Rodgers, 1993).

12. Feedback from learners to teachers about the processes they underwent while recalling new vocabulary should be sought on a regular basis.

Further Avenues of Study

1. Using the same research design and the expertise of translators, low level English language proficiency learners could be compared with higher level learners. Theories about the strategies for learning used by the two different groups could be tested.

2. A larger sample of learners, interviewed and traced over a longer period of time would give the study more generalisability.

3. By building a relationship of trust, the same learners used in this study could be observed in many more lessons and a profile of strategies used to recall vocabulary established.

4. By altering the method of observation slightly and using several video cameras, more student-centred lessons in which group work was the main focus, could be researched in terms of vocabulary recall.

Future Research

1.   The current researcher would recommend that learners be used more often as a resource for research into classroom events and the impact these events had on second language learning.

2.   Second language vocabulary learning, retention and recall should be researched separately to other components of SLA. It should be recognised that, as in the case of pronunciation, a unique process may be involved.

3.   The process of vocabulary learning needs to be given more of the spotlight in the future.

This chapter looked at the findings of the study and related them to current pedagogy and research practices. As with all findings in applied linguistics, it is not easy to link the findings with better practice in teaching. All that the current researcher can hope for is that the reader will be led to follow up some of the hypotheses arrived at in this thesis and improve upon the suggestions made for vocabulary teaching and materials. Recommendations made here may cause the practitioner to feel comfortable in the idea that they have always followed these basic tenets when teaching vocabulary or they may inspire practitioners to research their own long held views on how vocabulary is learnt. Either way the current researcher will have achieved the goal of encouraging more attention to be paid to *what vocabulary is recalled and retained from lessons and why.*

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APPENDICES

Appendix 1

Words Recalled by Learners After Lessons

LISTS OF WORDS RECALLED BY STUDENTS IN THE CLASSES IMMEDIATELY AFTER THE LESSONS

CLASS A

Student a

trigger (weak)
cue
aggressive
merely
butt
resent (weak)

Total= 6

Student b

trivet (weak)
disguised (weak)
cue (weak)
ogle
hose
porch
swerved
butt
merely
aggressive
dowdy
trigger

Total = 12

Student c

foibles (weak)
ogle
hose
dowdy
bench
merely
aggressive
trigger
butt
trivet

Total =10

Student d

disguise
butt
dowdy
cue (weak)
ogle (weak)

Total = 5

Student e

ogle
hose
butt
cue
merely

Total = 5

CLASS B

Student f

platypus
fin
reservation
pest
wild
domestic
species
pip
predator (weak)
estimate (weak)

Total = 10

Student g

axe
extinct
board
pip
galahs

Total = 5

Student h

axe
conservation
niches
disastrous
pest
plague
fin
predator
possums
pouch
marsupial
pip
pastures (weak)
inadvertently (weak)
delicate (weak)

Total = 15

Student I

predator
pip
nonrenewable
isolate
pest

Total = 5

CLASS C

Student j

spectacles
emerge
erruption
glance
microscopic
insane
immoral

Total =7

Student k

principal
observation
inhale
exhale
inspector
concentor
spectator
hanging out for
repetition

emerge

Total = 10

Student l

emerge
concentric
observant
inflammable

Total = 4

Student m

volcano
glance
emerge
spectacle
mono
micro

Total = 6

Student n

volcano
insane
spectacle

Total = 3

Student o

inflammable
invaluable
observant
imitative
emerge

Total = 5

Student p

glance
stem

Total = 2

Student q

observation
emerged
prefixes
suffixes
stem

Total = 5

Student r

inhale
siliconic
affix
insane

Total = 4

Student s

misfortune

Total = 1

CLASS D

Student t

foyer (weak)
understudy
discjockey

Total = 2

Student u

puppet
lyrics
conjurer
understudy
foyer
monologue (weak)
dialogue (weak)

Total = 7

Student v	Student w	Student x
scriptwriter	lyric	rehearsal
understudy	travelogue	magical
conjurer	libretto	record
foyer	footlight	footlights
	foyer	foyer
Total = 4	conjurer	reservation
	aisle	understudy (weak)
	understudy	aisle (weak)
	interval	
	monologue (weak)	Total = 8
	Total = 10	

Appendix 2

Comments made by the Learners about Recall of the New words

CLASS A
COMMENTS FROM INTERVIEW 1
23/8/93

WORDS RECALLED BY 25% OR MORE OF INFORMANTS

Word	Informant	Reasons Given for Recall of Word	Confirmed (C) or Not Confirmed (NC) by the Video
butt	a	1. *I didn't know it before I came to the class so.. (8)*	-
	b	1.*Student d looked this word in dictionary and show me (31).*	C
	c	1. *Because just double 't' from butt... (17)*	-
	d	1. *Because before I came into this room student a told me do you know this word....He told me... (31)*	-
	e	1. *I remember because maybe he's the unlucky person. He talks about his ....extraordinary. (37)*	-

aggressive	a	1. *That is also I guess from the sentence... (40)*	-
		2. *First I think ..when I saw aggressive I think agree or agreement or ugly*	
	b	*woman... so at first I think that is like this but there isn't. (7)*	-
	c	1. *Actually in our language there is aggressive.. (7).but it not the same meaning as in the dictionary or in the teacher. It means a pocket-thief...or something. (28))*	-
		1. *I remember this word but maybe wrong meaning because from agree and aggressive. I just guess this is the adjective from agree.(7)*	
hose	b	1. *I can because its noun and we can imagine what kind of this one. We know exactly the meaning not like (inaudible) ..put in this sentence have different meaning and make confused.. (17) (38)*	-
	c		-
	e	1. *I check this in the dictionary. (24)*	- NC
		1. *Same...I look at the dictionary. (24)*	
		2. *Before I look in the dictionary I tried to ask student b or student a, d or c (31) and then if they don't know what this mean I ask to my teacher(39) ...(she replied) to the whole class. (1)*	

trigger	a	1. *Sometime I remember the story...so I guess the story...(37)*	-
	b		NC
	c	1. *Because it in the first section I think.(26)*	-
		1. *I use another word ' struggle'(10).Same word has a similar spelling so...(17)*	
ogle	b	1. *Because in the first I think remember the word...(23)..I mean like we must learn subject usually we pay attention more in the first section and after that we can forget it...(26)*	C
	c		C
	d	1. *Because from the context.(37) and the teacher said 'watch the beautiful girl..(6)*	-
	e		C
		No meaning remembered.	C
		1. *(I looked in the dictionary)(24) and then the from the story that the teacher told us this morning..(6).maybe the story is interesting..(30) Because today the teacher has taught... I don't think ..* 2. *Every time I get new words I try to remember..*	

cue	a	1. *In my country some d irector start/ taketheir movie they say 'cue' 'action'. (28)*	-
	b	No meaning remembered	-
	d	No meaning remembered	-
	e	1.*If I remember that maybe I couldn't do that thing ...That's meaning can remember meto bad experience.. maybe I have that experience with that thing so ...when I remember ..ooh I don't want to do it again.(9)*	-
resent	a	1. No meaning remembered. *When I saw this word I think it is like yesterday, a very clear point, a very close point like 'recently' (7)*	C
	d	1.No meaning remembered	-
dowdy	b	1. See 'trigger'	C
	c	1. *Beacause the teacher explained. (1)* 2. *And from the context compare with 'beautiful' (37)*	C -
	d	1. *When I was staying with Australian family the host mother's daughter always told me 'dowdy' (32)*	-

merely	a	1. *I think 'merely' is very um..small form...***(17)(38)** *'just'...'just' is short or very small form.* **(10)**	-
	b		-
	c	1. *Actually , I think this word means 'sometimes' and I er...the other one ..the exactly mean is 'just' so I remember through my mistake.***(7)**	-
	e		NC
		1. *I know this word before I can remember..***(25)**	
		1. *First I asked my friends...***(31)** *They don't know exactly meaning so I want to from my dictionary to know the real meaning...***(24)**	

WORDS RECALLED BY LESS THAN 25% OF INFORMANTS

Word	Informant	Reason Given for Recall of Word
disguise(d)	e	1. *New words ...yes...except this ...'porch' and 'disguise'.*
porch	b	1. See *hose.*
trivet	c	1. *'Trivet' is the first word the teacher explained....(on the w/b)*
swerved	b	1. *Because the teacher...I think...she know the meaning but she write it difficult to explain to us.* 2. *She use her body to explain it.*
bench	c	1. *Before I guess this is a 'branch'.* 2. *I use image....because its tin roof...under tin roof.*
foibles	c	1. No meaning remembered.

WORDS RECALLED BY 25% OR MORE OF INFORMANTS

Word	Informant	Reasons Given for Recall of Word	Confirmed (C) or Not Confirmed (NC) by the Video
predator	f	1. *My teacher told us. (1)*	C
	h	1. *The teacher...when the introduction for the environmental..the teacher give me the kind of marsupial...on the w/b. (33)*	C
	i	1. *I used to see the movie...(in Thailand) but I see in English but I don't know what does it mean at first but now I remember this one . Today I just know what does it mean. (32)*	-
pest	h	1. *From the reading just now.(22)* 2. *I find from dictionary (24)*	C - C
	i	1. *Teacher told...in the classroom...This one is a lot of work...a lot of time to use this. (27)* 2. *First I don't know what does it mean so I don't understand what is it ...after teacher told me ...I remember. (1)*	- -
	f	1. *Open dictionary and remembered them. (24)*	-

pip	f	1. *I haven't known this word because I used to use 'seed' . I don't know in the orange , apple you call 'pip'. (10)*	-
	h	1.*In the crossword.. (22)* 2.*I hear yesterday from the conversation in class...after they point in the pip...but I don't know how to spell it. (25)*	C - C
	i		
	g	1.*The teacher told me ...at the table. (1)*	- -
		1. *I usually eat mandarin or apple but I didn't know about the name of ....(9)* 2. *Maybe before I researched about this word but 'pip' didn't write in the dictionary. (34)* 3. *'Pip' is easy to remember...just three words, 3 spell. (17)*	-
axe	h	1. *I remember when I filled the crossword. (22)* 2. *The teacher paint in the whiteboard. (33)*	- C C
	g	1. *Teacher draw a picture of a thing or axe thing...on the whiteboard. (33)*	
plague(s)	h	1. *I find from dictionary.(24)*	-
niche(s)	h	1. *From the reading. (22)*	C

fin	f	1. *My teacher told us .(1)*	NC
	h	1. *In the crossword.* *(2)*	C
		2. *The teacher paint pictures in the whiteboard.* *(33)*	NC

WORDS RECALLED BY LESS THAN 25% OF INFORMANTS

Word	Informant	Reasons Given for Recall of Word
conservation	h	1. *I remember from the reading.* 2. *And the teacher give us the meaning.*
possums	h	1. See 'predator.
pouch	h	"
marsupial	h	"
inadvertently	h	1. *The teacher didn't give the meaning...but if I read in the reading I know what's the meaning is but in one part...I can't remember. The teacher ust say the sentence means like de de de de....*
disastrous	h	1. *The teacher givethe meaning.*

pastures	h	1. *The teacher doesn't give the sure meanings. (Meaning not remembered) or I can't listening...if I go back home I find in dictionary...I blank it in my notebook.*
delicate	h	1. *In the dictionary lots of different meanings.* 2. *From the reading.*
nonrenewable	i	1. *And I'm not sure this one...open the dictionary and I told my friend what the meanimg...* 2. *Because first I can't find this one ...so I change 'renew'...*
isolate	i	1. *It has in the reading and the questions give the student to find out what does it mean.*
board	g	1. *I saw this word in the city or in the paper but I didn't know about meaning. Today I read a story of...3 times I read so I just...*
galahs	g	1. *I can remember easy about look ' 28'....like '28'.That easy to remember...but from today I could understand .....I know this bird quite well.... day trip ...*
extinct	g	1. *Because today's lesson was about environment of Australia ....we talked about Australian native animals...I'm quite interested in Australian native animals.* 2. *Teacher drew it for me on the w/b.* (Teacher asked the class). *My words he said yes.*
platypus	f	1. *My teacher explained to the whole class.*

reservation	f	1. *I used to open dictionary.*
wild	f	1. *Opened the dictionary and remembered them.*
species	f	1. The teacher....*She told us.*
estimate	f	1. The teacher *told us but forgot it.*
domestic	f	1. *I used to open dictionary.*

CLASS C
COMMENTS FROM INTERVIEW 1
15/5/93

WORDS RECALLED BY 25% OR MORE OF INFORMANTS

Word	Informant	Reasons Given for Recall of Word	Confirmed (C) or Not Confirmed (NC) by the Video
emerge(d)	o	1. *He explained again and again .(the teacher)* *(1)*	C
	k	1. *In the class (the teacher) said another word give me...I found another word ...'appear'.* *(4)*	C
	l		C
	m	1. *Because I couldn't catch the sentence on the tape 'cause that was a new word. . (5) Many Japanese students didn't catch it either so he/ the teacher explained it to us ...the meaning. (1)*	C
	j	1. *(student) p said it is' come '...and 'come ' is 'appear'. Because (student) k said 'appear'. (3) (2)*	C
		1. *After all the students give information about using other word...'appear'. (3) (2)*	C
		1. *(The teacher) explained the meaning of this...when the spider come out of the...(6)*	

glance	m	1.Because it is connected with the dictionary...a quick look at the dictionary. I had a dictionary so I remember this word ....in the last exercise. *(12)*	-
	p		-
	j	1. I thought ...I have a meaning for 'glance' but in this case I have a meaning I didn't know. Especially the one of loving glances. Not diffeent from the meaning in the text...but I didn't know the meaning of 'loving glances'...one of the three meanings in the exercise. The wrong meaning from the text. *(7)*	-
		1. Boys glance at girls ...something like that. *(12)* It's not often you see that word.*(8)*	
insane	n	1. I remember ...abnormal so crazy..crazy..I am familiar with crazy*(10)*	-
	j	1. I have never seen this word before*(8)*. 'In' means 'not' the Spanish boy says..'insane'...*(2) (3)*. Yes I got this word wrong*(11)*. I'm thinking 'insane' have a different meaning like 'in spite of ' *(7)*	**C**
	r		-
		1. I don't know but I still remember...beacuse crazy...I thought must be ' sane'....He says its opposite from this so I change *(7)*	

WORDS RECALLED BY LESS THAN 25% OF INFORMANTS

Word	Informant	Reasons Given for Recall of Word
invaluable	o	1. *Imagined the meaning was completely opposite*
observant	o	1. *I already knew the noun and the verb so I just had to change the...(inaudible)* 2. *I wrote them down ...copied the teacher*
	l	1. *He asked me the adjective form of 'observation'. I thought it was ' observative' because...I said ' observative but aah...'observant was right.*
observation	k	1. *I know 'observe' but I didn't know the noun.* 1.....*in the listening . The teacher told me.*
inhale	k	1. *This word is quite easy to remember for me because you know (the teacher) ...he gestured quite... (laughs). I can remember his appearance*
	r	1. *I read the word... I think this word is important for every day conversation so...*
concentric	l	1. *We were learning about suffix/ prefix so I thought 'co' means 'to gather'. I thought that means 2 circles combine together but the answer was wrong.... So I thought Oh...I was wrong*

spectacle	m	1. *This word because (the teacher) said three of friends (student n , student j and another student) have these and I looked at them. At first I had no idea....*
	n	1.*....because I wear them. (Theteacher) says 'spectacles' (student j, n and another student) wear them. The first time with (teacher) but I forget again*
spectacles	j	1. *Not entirely new for me*
volcano	m	1. *I have seen this word before*
	n	1. *There was Krakatoa*
microscopic	j	1. *I have seen this word before*
siliconic	r	1. *Recently I thought this might be connected with beauty surgery... some people put silicon in the chest or....*
micro	m	1. *I have seen this word before*
mono	m	1. *I have seen this word before*
scopic	n	1.*No meaning given*
	q	1.*It was a very long word*
pneumon	n	1. *My father have a lung disease so I remember*

silico	n	1. *I know silicon*
osis	n	1. *I remember the population 'condition' in my country .... so big problem so...*
pneumonoul tramicrosco picsilicovolc anoconosis	j	1. *It's very unusual but we used to have in medical subjects... pneumo... cono.. mono... silicosis... We used to have ...*
stems	q	1. *So many stems in the lesson*

	p	1.*I was thinking... in English it should be the same root... In Spanish this word is called like in English.... root. The root of the word . If there were 20 like this probably I would not remember it.*
		
		    Written... I specifically asked (the teacher) for that...
		    Not the same in Spanish... Maybe this is the reason why I remember it..

prefixes	q	1. *We had to do an exercise. The word was written.. (The teacher) said it many times*
suffixes	q	1.As given for prefixes above
affix	r	1. *I didn't know this word so I found this word in the question so I looked up this word in the dictionary otherwise I couldn't answer... so I still remember it*

imitative	o	1. *I already knew the noun and verb so I just had to... (*INAUDIBLE*)* 2. *I wrote them down..... copied teacher*
repetition	k	1. *In class we learned 'observation, imitation, repetition.'. This is key words . Actually I could hear the word from the tape but I couldn't write the spell exactly but (the teacher) wrote.... I was wrong that's why I remember...*
principal	k	1. *This word I always con... worry about the spell.... principle or principal... you know very very similar... but today I really quite clearly...* principal (GIVES 'A' SOUND) *and* principle (GIVES SHWA SOUND). *I know the meaning but I always confuse the spell*
exhale	k	1. *(The teacher) gestured quite...* (LAUGHS). *I remember his appearance*
inspector	k	1. *This word is interesting in its structure. It means examine closely. It means 'inside'. 'Spector' means look at something*
hanging out for	k	1. *Actually at that time I want/ need a coffee*
phen	m	1. *I have seen these words before*
socio	m	1. As above

erruption	j	1 ..*Not new*
immoral	j	1. *Not new*
misfortune	s	1. *It was in the text. This one .... one*
spectator	k	1. *'Spect' means 'look at' . 'Spector' is glasses but it's easy to guess. (The teacher) also said some students they couldn't .... he said the names*
concentor	k	1. *This word is interesting in its structure . Because you know ' concentor' ... the Spanish guy says this means same centre*
inflammable	o	1. *I imagined the word was completely opposite in meaning.(7)*
	l	1. *I have never seen that before.(8) I haven't checked it in Japanese. I don't think there were many new words. I circled it. (41)* - -

CLASS D
COMMENTS FROM INTERVIEW 1
12/8/93
WORDS RECALLED BY 25% OR MORE OF INFORMANTS

Word	Informant	Reasons Given for Recall of Word	Confirmed (C) or Not Confirmed(NC) by the video
understudy	x	1. *Can't remember why*	-
	w	1. *I haven't looked at a dictionary.... because... my teacher has given that word and she tried to explain and fortunately I can remember that word. (1)*	C
	u		-
		1. *I can guess about study this word but it not concern to study. (7)*	
	v		C
	t	1.*(The teacher) explained. (1)*	C
			-
		1.*Because (the teacher) talk about it. (1)* 2.*It is an interesting word (30) because I didn't know it before but 'under' and 'study' I know meaning separate but together I don't know...(17)*	

foyer	t	1.Because we made it to a group (of words). I want check up from dictionary . I didn't find word (34)but (the teacher) asked student v . They talk about that word...(2)	- C
	w		-
	u	1. I looked up dictionary... in an exercise.. yes	- C
	v	1.I looked up dictionary.. (24) Somebody answered (2)	C
	x	1.Because I made a mistake... (the teacher) asked me ... she asked me 'why'? (15)	-
		1.It's the same meaning with the word I already know.... 'lobby' (10)	
lyrics	w	1.I remember the 'lyric' meaning because after you can use dictionary (24) and I try to remember ...(23)	-
	u	1. From the exercise ... probable/ improbable (22)	C
conjurer	w	1. Because ... my teacher has given that word and she tried to explain and fortunately I can remember... I haven't looked at the dictionary (1)	C
	u	1. First exercise (26)	C
	v	1. All the practise (27)	C
monologue	w	1. No meaning remembered	-
	u	1 .Also this one .... I looked up in dictionary (24)	-
puppet	u	1. ....because sounds funny.... there are three ps (17) 2. My class mate answered... in the exercise (2) (3)	- C

WORDS RECALLED BY LESS THAN 25% OF INFORMANTS

Word	Informant	Reason Given for Recall of Words
travelogue	w	1.*I just looking at dictionary*
libretto	w	1.As above (travelogue)
footlight(s)	w	1.As above (travelogue) 2.*i remember the light and foot so....*
aisle	w	1. As above (travelogue)
	x	1. *I think it is easy to remember because it's a short word....*
interval	w	1.As above(travelogue)
disc-jockey	t	1.*I checked the dictionary*
scriptwriter	v	1.*Because (the teacher) explained the (INAUDIBLE)..... this word*
rehearsal	x	1.*Because I put it in the list that I wrote to practise... I can put it in a story... in a sentence... and I try remember the sentence.*
magical	x	1.*I think I know the meaning of magic... and I think it's the same or quite similar to magical*
record	x	1.*Usually this one in myself I write the tape or some computer or record. I can do....*
reservation	x	1.*I know already 'reserve' and the same meaning as 'conserve'*
dialogue	u	1.See monologue

Appendix 3

Transcripts of the Classroom Interaction

VIDEO TRANSCRIPT

CLASS A

Teacher sets up OHT and talks about subject of entertainment and laughter in entertainment.

Tells students they are going to read about entertainment but before they do they need to work out the meaning of some vocabulary. Example vocabulary is put on OHT to give students practice in guessing meaning from context encouraged to deduce by looking at point of speech, synonyms antonyms, signal words, even 'but' the word was then written again. The example vocabulary is not included in the ready text. Some students write down the example vocabulary. (Student b, Student e, Student d and Student c:)

'Trivet' is the first word on the OHT. Students have to guess what it is from the surrounding sentence. The teacher then expands the meaning. Students come out and write the word next to the typed word.

'Swerved' is the next example. It is written again twice as the first time. It was spelt wrong by a Student. Unfortunately the interaction on these words was not recorded on video. The camera mal-functioned and didn't start to record until the last example 'languid'. After speaking to the teacher she told me the first two examples were treated the same as 'languid' so the interaction for languid is included here.)

1. Teacher: *The word is languid. OK? I'll read it for you:*

'The illness left the woman so languid (extra emphasis

given on languid) *that she could not even cross the*

room for a glass of water.' So could you guess what

'languid' means?

2. Student: (inaudible)

3. Teacher: *That's right. Left her so weak ... So languid is weak*

...... without any energy .... Have any of you ever felt

languid?

4. Students: (Murmur)

5. Teacher: *Yes, yes. That's right.* (Students have a minute to study the OHT and write down new words if they want to.)

6. Teacher: *oh, I'll leave the phonemic symbols right now because .... they're .... they're 4 new words to you. Now the words I really want .... want you to learn .... of course I'm happy for you to learn these as well .... you can look up these in the dictionary. I'll give you a chance shortly. The ones that we're concentrating on though are the ones on this sheet which were on the on the back ....OK so when you get the sheet just have a look at the words first of all on the back.* (Teacher gives out exercise explaining what to do and strategies needed to guess meaning.)

7. Teacher: *Now the words if you look down .... down the page the*
                                    TM1   TM1   TM1
    ones on the back .... are 'ogle, dowdy, hose and

    porch'. They're the words in the first reading. So I'll say
                          TR1
    them again. 'Ogle'

8. Students:	SR1 *Ogle*
9. Teacher:	TR1 *Dowdy*
10. Students:	SR1 *Dowdy*
11. Teacher:	TR1 *Hose*
12. Students:	SR1 *Hose*
13. Teacher:	*and Porch*
14. Students:	*Porch*
15. Teacher:	*Now turn your paper over .... and have a look and read the information.* (Teacher goes on to give more instructions. Students work on first exercise quietly and individually.)
16. Teacher:	*Now does everyone know what cartoon is?*

17. Students: *Yes*

18. Teacher: *OK well a cartoon will amuse you won't it? Now just*

         picture the cartoon in your mind. (Students continue to

         work individually.)

                TR+F1

19. Teacher: *OK has anyone got any idea what* **ogle** *might mean?*

20. Student a: (inaudible)

21. Student b: (inaudible)

         SF1

22. Student a: *or looks*

23. Teacher: *Look. Is there any special kind of look that the man*
         TF1
         might?

         SF2

24. Student: *Pay attention*

         SF3

25. Student a: *Attractive*

26. Teacher: *Aaa now. What did you say?* (to Student a)

	SF4
27. Student a:	*Attractive*

	TF2
28. Teacher:	*Attractive. Who .... what was attractive?*

	SF5
29. Student:	*The girl*

	SF6
30. Student a & c:	*The girl*

31. Teacher:
*The girl. Now you just imagine she's a very attractive girl. I don't know what you think is attractive but some men think that blonde girls are attractive with beautiful bodies. Yeah maybe maybe you think that that a short girl with nice dark hair is very attractive alright? He's watering his lawn .... have you got the picture and the attractive girl walks past so he give .... he watches her right? So to **ogle** is to .... is to look at .... or to stare at something but it has .... kind of meaning at well.*

(TF3 appears above "bodies", TF4 above "watering his lawn", TR+F2 above "ogle")

	SF7
32. Student:	*Admire*

	TF5
33. Teacher:	*Admire .... yes. Usually admire .... it's got a sexual er*

inference about it .... connotation because it's the man ^{T_F6}
who is looking at the lady. It's usually a sexual ^{T_F7}

connotation. (Students all write down meanings) _As_
he **ogles** her he accidentally turns the **hose** on his ^{T_R2} ^{T_F2}

**dowdy** wife. OK. If you .... if you can find the meaning ^{T_R2}

of **hose** from that context .... if you didn't already know ^{T_R3}

it! write down the meaning of **hose**. (Students work ^{T_R4}

individually again. Some start to use dictionaries. The

teacher stops them.)

34. Teacher: (Talks to them while they still have their heads down

working.) _What .... what is the man doing? He's_

watering his lawn .... right .... And is he watching what

what he was doing with the water?

35. Students: _No_

                                            T_R+F1

36. Teacher: _No well what do you think the word '**hose**' might_

mean?

37. Students: (inaudible)

                     S_F1
38. Student a: _Some pipe_

		TF1	**TF2**

39. Teacher: *Some pipe. Yeah and what's the pipe made from?*

                                   SF1

40. Student a: *flexible pipe.*

41. Student: (inaudible)

                                   TF3

42. Teacher: *It's flexible pipe .... you're quite right .... oooh a you*

                       looked in your dictionary didn't you?

43. Student a: (laughs)

                                                          TF4

44. Teacher: *That sounds just like a dictionary .... flexible er pipe.*
                        TF5
     Yes and what would the pipe be made from if it's

                       flexible?

                              SF3

45. Student: *Plastic*

                              SF4

46. Student a: *Plastic*

                            TF6   **TF7**

47. Teacher: *Plastic or it could be rubber. So yes .... ya .... and what*

                       do you .... what is it used for?

48. Students:	**Sᴦ5** *Water*
49. Teacher:	**Tᴦ8** **Tᴦ9** *For water. Where's the water?*
50. Students:	(Several inaudible answers)
51. Teacher:	**Tᴿ+F2** *If the* **hose** *is flexible where is the water? .... on top of* **Tᴿ+F3** *the flexible* **hose***? Where is it?*
52. Students:	(Inaudible)
53. Teacher:	**Tᴦ10** *It runs through the pipe.*
54. Students:	**Sᴦ4** (Same time) *through the pipe*
55. Teacher:	**Tᴿ+F4** *So what would a* **hose** *be? A flexible piece of ....?*
56. Students:	(Inaudible)
57. Teacher:	**Tᴦ11** *Pipe made of ....?*

SF7

58. Student a: *Plastic*

TF12

59. Teacher: *Through .... through which water can pass. Alright?*
                       TR5   **TR3**
                     *....So he accidentally turned the **hose** on his **dowdy***

                     wife.

SR2

60. Students: ***Dowdy** wife*

SF1

61. Student a: *Is this ugly?*

62. Teacher: *Pardon?*

SF2

63. Student a: *Ugly wife* (students laugh)

TF1

64. Teacher: *Well, when you look you see .... there's the attractive*

                     girl and you would think immediately he's looking at

                     the attractive girl. He's not looking at his wife is he?

65. Students: *Yeah*

TR+F1

66. Teacher: *So .... is she .... **dowdy** could mean ....*

TF2

67.   *could mean ugly .... yes .... or it could mean .... what*

         else beside ugly? It may not be absolutely ugly.

SF3

68. **Student a:**   *Unattractive*

TF3

69. **Teacher:**   *Unattractive .... yes .... or another word for*
                    TF4
                    unattractive.

70. **Students:**   (think hard)

SF4

71. **Students:**   *Plump*

                    TF5
72. **Teacher:**   *She could be .... she could be plump too .... she could*
                    TR+F2
                    *be plain .... plain but **dowdy**. If the woman is*

                    unattractive what do you think she might be wearing?

73. **Students:**   (No response)

74. **Teacher:**   *The attractive lady probably was walking past with*

                    something .... some beautiful clothing and if you think
                    TR+F3
                    *back to **dowdy** and him not looking at his wife so what*

                    do you think his wife might be wearing?

75. Students: (Inaudible)

T F 6   **T F 7**

76. Teacher: *Unglamorous, yes .... or not fashionable.*

77. Student: (Inaudible)

                               T F 8

78. Teacher: *Maybe .... but not fashionable. Who was .... the lady was sitting on the porch. Do you know what a 'porch' is?*

79. Student: *Terrace*

80. Student e: *Terrace*

81. Teacher: *Yes it is like a terrace. So what's a terrace? Just picture the house.*

82. Students: (Think hard)

83. Teacher: *Just picture the house.*

84. Student a: *Same up on the window*

85. Student: *In front of the house*

86. Teacher: *In front of the house. Well and a garden is in the front of the house. What's the difference between a .... and the lawn.*

What's the difference between a porch? Is it part of the house?

87. Students: *Yes*

88. Teacher: *Is it .... what might it look like?*

89. Student e: (Inaudible)

90. Student: *A roof*

91. Teacher: *It's got a roof. Any walls?*

92. Students:	*No*
93. Teacher:	*So it's a roof that comes out from the house and maybe gives some shade. Yes and it would have a floor?*
94. Students:	*Yes*
95. Teacher:	*Yes and it's part of the house. Alright now .... We worked through that one together now let's see how you go with the next word which is foibles.*
96. Student:	*Foibles* (Teacher instructs students not to look in dictionaries and to work by themselves. Students work silently. The teacher continues to repeat instructions while they are working and monitors individuals.)
97. Teacher:	*OK now most of you have got .... there's a good lesson there. I've seen 'defects', 'mistakes', weaknesses' right bad habits yes that's right but we go back have a have a closer look. 'When we are secure about our abilities we can joke about our foibles. If we can laugh about our small faults we will not be overpowered by them.' So what .... if you look at that second sentence it really*

gives you the answer .... 'If we can laugh about our small faults we will not be over-powered by them.' The words are actually in that sentence.

98. Students: *Faults* (Murmured)

99. Teacher: *And what are they? ....*

100. Students: *Faults*

101.Teacher: *Small faults That's right. You were on the right track about mistakes and bad habits but small faults is actually a synonym for foibles .... right .... and we've all got foibles haven't we. I've got a lot .... a lot of foibles .... a lot of bad habits and weaknesses which are not foibles .... foibles are only the small ones .... the minor ones. OK? Now at the end you can check them in your dictionary ....* (Students go on to next paragraph and work individually and silently. Teacher monitors individuals. Talks to one student then b, d, c and a.)

102. Teacher: (To Student b) *Yes, that's that's quite a good guess but it's not quite right. Look around for some more*

words like that. (Student b looks expectantly at teacher) Yes, yes write the second word. The second word is better than the first word. (To Student d) Good, good. Did you know it before?

103.Student d: *Yes*

104. Teacher: *Did you know the meaning before? Right. Did you know the meaning of that?* (To Student c).

105.Student c: (Shakes his head)

106. Teacher: *Oooh .....Got same words there that are spot on. Yes.* (To Student a) *Yes, I hadn't thought of that one. It's not exactly the meaning but it causes .... but it helps that.*

107. Student: (Inaudible)

108. Teacher: *No that one is a good guess but it's not for cause ....*
                          Tᴍ1
                    *for **cue***

                                    Tᴍ1
109. Teacher: *What? If you look at **trigger** in that one do you think*

TR+F1
***trigger** is a noun.*

SF1
110.Student b: *Verb*

TF1
111. Teacher: *A verb?*

SF2
112. Student   *Verb*

b&a:

TF2
113. Teacher: *It's a doing word isn't it? OK So that should help you.*

SR+F1
114.Student a: (To Student e) *What do you think .... **cue**?*

115.Student e: *Eh?*

SR1
116.Student a: ***Cue***

SR+F2
117.Student e: ***Cue** What?*

SR2
118.Student a: *C.U.E.*

SF1
119.Student e: *Yeah*

120.Student a: *What do you think?*

121.Student e: (Murmur inaudible)

                                         SF2
122.Student a: (To Student c) *What you think?* (looks at Student c's

                    work)

123.Student c: (No reply)

                                                    SF3
124.Student e: (looks at Student b's work and points) *Better?*

125.Student a: (No reply)

                                         SR+F3
126.Student a: (to Student d) *Cue?*

127.Student f: *Uuh*

           SR+F4
128.Student a: *Cue?*

           SR+F5
129.Student d: *Cue?*

130.Student a: *Uuh*

131.Student d:	**Sʀ+F6** *Cue?*
132.Student a:	**Sʀ+F7** *Cue?*
133.Student d:	*Yeah* (laughs)
134.Student a:	**Sꜰ4** *L Y N E*
135.Student d:	**Sꜰ5** *L I N E*
136.Teacher:	*We'll go .. We'll have a look at that one. The memory* **Tʀ1** *of a bad experience can sometimes **trigger** the same* *fear caused by that experience. So .... and just think* *about it. 'The memory of a bad experience can* **Tʀ2** *sometimes **trigger** the same fear caused by that* **Tꜰ3** *experience'. When you think about a bad experience it* *can ....?*
137.Student a:	**Sꜰ6** *L I N E Line?*
138.Student d:	(Nods his head and laughs)
139.Student a:	(Appears unconvinced Looks at Student e's work)

140.Student e: (Inaudible)

141.Student a: (Looks closely at Student e's work. Questions Student

e)

142.Student e: (Gestures he doesn't know and isn't sure)

SF7
143.Student: *Start?*

TF4   **T**F5
144.Teacher: *Start .... yes. It can be the cause of you remembering*

of ya....of you getting a fear by the same experience.

'Thus, a child might be frightened by the sight of a dog,
                             TM1
*even though he is safe **merely** because ....*

SF1
145.Student e: *Maybe probably*

SF2
146.Student: *Just? .... just ....*

TF1
147.Teacher: *Just. Yes that is a good word*

SF3
148.Student a: *Just just* (to Student c)

149.Student c: SF4
Just

150.Teacher: (Students write it down) *Something that is not huge ....*
TR+F1 TF2
***merely** it's just a small thing 'just' just because he*

once had a bad experience with a dog.

151.Student a: SR+F1
***Trigger** is?* (to Student c)

152.Teacher: TR1 TR3
*A bad experience can be the **cue** that **triggers***
TR+F1
*that fear. Now the **cue** it isn't the cause.*

153.Student c: *Humm?*

154.Student a: SR1
Trigger

155.Student c: (no reply)

156.Student: SF1
The reason?

157.Teacher: TF1
Yes, something not quite reason

158.Student: (inaudible)

                         Tꜰ**2**   **T**ʀ**2**

159.Teacher: *Yes, it's an event A 'cue' ....*

160.Student: (mumurs inaudibly)

                        Tʀ+ꜰ**2**

161.Teacher: *Alright. A **cue** .... I'll tell you the meaning for this one*
                        Tʀ+ꜰ**3**
       *then .... A **cue** is something that is paid or done at the*

       .. at the ... it's a signal for something to happen.
                    Tꜰ**3**
       Something might happen which signals that something

       else is going to happen. Urum ... It also has the

       meaning that if you are .... if you are in a play on the

       stage and you .... you want to .... you say your lines

       then maybe you know at a particular time you have to
                        Tʀ+ꜰ**4**
       *be doing there's a **cue** a signal that you must be doing*

       something .... or a word might be a signal when I say

       this I should be doing something else and you take
                Tʀ+ꜰ**5**
       *your **cue** .... I mean Toni is taking your photograph she*

       might just umm raise her hand for you to stop .... or it's
              Tʀ+ꜰ**6**
       *a **cue** for you to do something .... it's a signal.*

                    Sꜰ**8**

162.Student: *An action?*

	TF5

163.Teacher: *Yes but it's more than an action, it's a .... it's a signal or*
TF6
something happening to give a message for you to act

or react to something .... OK? Now go on to the next

one. 'Some people enjoy talking about their fears ....'

(Students work quietly and individually)

164.Student d: (To Student c pointing at exercise on sheet) *Do you*

know this one?

165.Student c: (Shakes his head and Student d takes his sheet back)

166.Teacher: *Don't go on to the last one yet. I know that you might*

know something in the last but Have a go at ' Some

people enjoy talking about their fears, while others
TM1
resent being asked to talk about their personal

feelings. If you've got an answer have a look or have a

talk with the person next to you and see if you have a

similar kind of answer for it.

SR+F1
167.Student c: ***Resent?*** (to Student a)

168.Student a: *Hummm?*

SF1

169.Student c: *Mean?*

SF2

170.Student a: *I think near or close.*

                          TR+F1

171.Teacher: *Do you know what part of speech **resent** is?*

SF3

172.Student c: *How do you spell?*

SF4

173.Student: *Verb*

SF5

174.Student c: *Noun*

175.Teacher: *Part of a...*

SF6

176.Student: *Verb*

177.Student e: (speaks to Student b)

TF1   **TR+F2**

178.Teacher: *Verb. They **resent** being asked.*

SF7

179.Student c: *Verb it's a verb*

SF8

180.Student a: *Yeah*

181. Student c:	*It's a verb*
182. Student a:	**SF9** *Very close in time*
183. Student c:	**SF10** *But you use near*
184. Student a:	*Yeah*
185. Student c:	**SF11** *Near isn't a verb*
186. Student a:	(inaudible)
187. Student c:	**SF12** *I think afraid*
188. Student a:	**SF13** *Afraid?*
189. Teacher:	**TF2** *The signal word is while others*
189. Student c:	**SF14** *While others, yeah*
190. Teacher:	**TF3** *Some people enjoy doing something while others ......*
191. Student c:	**SF15** *While others* (to Student a)

<div align="center">**TF4**</div>

192.Teacher: *Being asked to talk about their personal feelings.*

<div align="center">**SF16**</div>

193.Student c: *Cause some people enjoy some people afraid*

SF17

193.Student a: *Yes but*

SF18

195.Student c: *Enjoy*

<div align="center">**SF19**</div>

196.Student b: (inaudible) *.... better .... better*

SF20

197.Student c: *Afraid*

<div align="right">**TF5**</div>

198.Teacher: (to U) *Enjoy talking.... while others is a contrast ...... if*

<div align="center">**TF6**</div>

they enjoy then they won't prefer while others makes

<div align="center">**TF7**</div>

a contrast .... some people enjoy it but other people

won't enjoy it ....

SF21

199.Student c: *Contrast*

SF22

200.Student c: *Dislike*

SF23

201.Student e: *Dislike*

202.Teacher: *but while others **resent** being asked to talk about their personal feelings. How do you feel if I ask you to talk about something very personal?*

203.Student: (inaudible)

T$_F$9

204.Teacher: *How do you feel if I .... some people like it but how do you feel?*

205.Student: (inaudible)

T$_F$10

206.Teacher: *Unhappy?*

T$_F$11

207.Student: *Dislike maybe*

208.Teacher: *Dislike maybe. Any other feelings?*

209.Student: (inaudible)

T$_F$12

210.Teacher: *You don't like it. Yes*

S$_F$25

211.Student: *Embarrassed*

212.Teacher: *Embarrassed. Yes you're on the right track but there's*
TR1
more feeling in it. **Resent**.

SF26
213.Student c: *Reserve*

214.Teacher: *No .... no .... This I guess this one doesn't give you*
TR+F4
enough good information but 'to **resent***' is to not like to*
TF14
be angry about it .... to feel yes to be angry about
TF15
being asked or to feel bitter feeling .... It's a negative

feeling and I did like dismayed that somebody wrote.

215.Teacher: *OK let's do the last one. 'Some people try to hide their*

nervousness; they try to disguise their anxiety by

telling jokes.

216.Student: (inaudible)

217.Student b: *To cover*

TM1
218.Teacher: *Others become loud and* **aggressive** *attacking people*
TM1
by making them the **butt** *of cruel jokes.* (Students

work silently and individually on the last exercise)

219.Teacher: *Some people try to hide their nervousness. Some try to disguise .... What part of speech is it?*

220.Student e: *Verb*

221.Student a: *Verb*

222.Teacher: *Try to disguise .... yes. To disguise is?*

223.Student a: *A verb*

224.Teacher: *A verb yes*

225.Student a: (To Student c - inaudible question)

226.Student c: *Humm? to appreciate* (Students work silently again. Teacher monitors)

227.Teacher: (To Student d) *Yes, yes er the first one the first one yes*

228.Teacher: (To Student c) *Yes .... did you .... did you know the meanings of those before we began?*

229.Student c: *Er these two words*

230.Teacher: *Yes*

231.Student c: *Yes*

232.Teacher: *You did know the meaning of that did you?*

233.Student c: *No I didn't know*

234.Teacher: *No? Good work Student c. You got the meaning there Student a?*

235.Student: *Disappeared or*

236.Teacher: *Pardon?*

237.Student a: *Disappear*

238.Teacher: *Disappear?*

239.Student a: *Yeah*

240.Teacher: *Oh Yes Yes* (gestures for more information)

241.Student a: *Or cover*

242.Student e: *Cover their attitude*

243.Student c: (inaudible question to Student a)

244.Student b: *Enthusiastic*

245.Student c: *to keep of?*

246.Student b: *Enthusiastic*

247.Student e: What? enthusiastic?

248.Student b: (inaudible)

249.Student a: *On what? On Tuesday*

250.Student b: *On Tuesday*

251.Teacher: *When you see the semi colon .... did you know that*
                      when we have a semi-colon we are going to add more
                      information of a similar kind to ... what is already being
                      said. A semi-colon is

a signal to you ....

252. Student a: *How do you spell it?*

253. Student e: *E N*

254. Student b: *A N ..*

255. Student e: *E N T H U*

256. Student b: *A A N T*

257. Teacher: *So 'Some people try to hide their nervousness. Now*

it's going to .... we're going to repeat that kind of

information. They try to disguise their anxiety by telling

jokes.

258. Students: (murmur only) *Hide ....*

259. Teacher: *To hide their anxiety or cover up, yes .... Instead of*

looking anxious they'll tell a joke to make people think

that they're not .... they're not nervous. While others

TR1
become loud or **aggressive**.

SF1

260.Student: *Angry*

TF1

261.Teacher: *.... attacking people*

SF2

262.Student: *Angry*

TR+F1

263.Teacher: *So **aggressive** can be angry but it's to do with .....*
TR2
*what .... what kind of part of speech is **aggressive**?*

SF3

264.Student: *Adjective*

TF2   **TF3**

265.Teacher: *It's an adjective. It describes the quality of somebodies*

behaviour.

SF4

266.Student a: *Same rude?*

TR3

267.Teacher: *Others become loud and **aggressive** .... attacking*

people

SF5

268.Student a: *Ru .... rude?* (inaudible suggestion)

	TF4	TF5

270.Teacher: *Offensive that's part of it .... being offensive yes but how are they being offensive. What was it? (Student a)*

SF6

271.Student a: *R U D E*

SF7

272.Student e: *R U D E*

SF8

273.Student a: *Rude*

TF6

274.Teacher: *Spell it*

SF9

275.Student a: *R U D E*

TR+F2

276.Teacher: *Rude yes to be **aggressive** is to be rude. That's true but it's part of the meaning but the actual .... look at*
TR4
*the .... others become loud and **aggressive** attacking people by making them .... attacking people by making them, and then we get the explanation. Others*
TR5
*become loud and **aggressive** attacking people .... there are the two words ....*

SF10

277.Student: *Unkind*

278.Teacher:

So if .... if it is unkind they become loud and
TR+F3
aggressive .... Oh suppose that not by saying it will

.... will you gət it any more .... attacking people ....

TR+F4

OK well to be **aggressive** is to .... is to .... be forceful
TF7
in behaviour .... you .... you .... you attack people ....
TF8
you you can physically attack them and you can
TF9
verbally attack them .... you can be rude to them ....
TR1
right? Attacking people by making them the **'butt'** of
TR2
cruel jokes .... The **butt** of jokes. Now what do you
TR+F1
think **butt** is?

SF1

279.Student e:

Victim

SF2

280.Student a:

.... the victim

TF1   TF2

281.Teacher:

The victim yes, yes .... or the target.

SF3

282.Student c:

the target

TR+F2

283.Teacher:

'Butt' doesn't always mean victim but if .... you are the
TR+F3
victim if you're the **butt** of a joke you repeatedly make

then the subject of the joke of the victim of the joke ....

now at this maybe you could go to your dictionaries

....(Students check their dictionaries the keen ones

turn over to the back to write in definitions. They

further discuss the words in their groups.)

284.Teacher:
Sometimes you know if you if you have a little word
TR3
like **ogle** you can draw a little picture .... like a little
TR4
cartoon. **Dowdy** you could also draw a picture of
TR5
someone **dowdy**.

285.Teacher:
Only write the definition if you weren't really sure about
TR6
what the word meant. If you know what **hose** is then

you don't really need to write the dictionary definition

do you ....

286.Teacher:
Of course you would understand that it isn't just a man
TF8
who looks at an attractive lady .... it could be a lady

who looks at her hero or attractive man or it might be
TF9
man man or woman woman these days .... a sexual ....
TR4   TR+F3
thats right, whatever tums you on .... **Ogle** .... **Ogle**

has a sexual connotation .... (a few minutes later) So if
TR4
you deal with the word **trigger** .... you know the
TR+F2   TF7
trigger of a gun don't you. Well that start something
TR+F3
.... it can **trigger** something .... sets off something ....

TR+F4

*you'll find there are a lot of meanings for **butt**, b u*

TF3

doublt t in the dictionary but just the one (to Student c)

this time is the target or teasing or joke.

287.Student:

SR+F1

*So for **hose** can we include some .... (inaudible)?*

288.Teacher:

TF13

Yes that's right there are other meanings but just put in

this context for me.

289.Student a:

So if I want to say a flexible pipe can I say .... I must

SR+F2

*say **hoses**.*

290.Teacher:

TR+F5　　　*TR+F6*

*Well **hoses** is plural just a **hose**. It's a flexible pipe that*

water can pass through.

291.Student a:

SF8

Flexible can be for carrying water.

292.Teacher:

TF14

For carrying water .... that's right! It's a good one! And

if something's flexible it's got to be made of something

plastic.

293.Student a:

(Gives a definition to Student d) (Students continue to

record definition from the dictionaries)

294.Teacher: (While students are still working) *Right you've got 12 new words there as well as trivet pulverize languid and I don't know what the other one was, you see I've forgotten .... oh swerve wasn't it?* (Teacher tells the students to write in the phonemic notation for each of the 12 words for homework and to bring them the following day as they will come up again in the reading.)

SM = 0

TM = 9	ogle	cue	butt
	dowdy	trigger	aggressive
	hose	merely	resent
SR = 7	ogie 1	hose 1	trigger 1
	dowdy 2	cue 2	
TR = 29	ogle 4	trigger 4	resent 1
	hose 6	cue 2	butt 2
	dowdy 5	aggressive 5	
SR+F = 11	hose 2	cue 7	
	resent 1		
	trigger 1		
TR+F = 34	hose 6	ogle 3	resent 4
	butt 4	dowdy 3	cue 6
	trigger 3	aggressive 4	merely 1
SF = 72	hose 8	aggressive 10	resent 26
	butt 3		cue 8

merely 4

trigger 2
dowdy 4
ogle 7

$T_F = 73$

hose 14
butt 3
trigger 7

ogle 9
aggressive 9
resent 15

cue 6
merely 2
dowdy 8

$S_T = 108$

ogle 8
dowdy 7
hose 12

cue 25
trigger 7
merely 4

resent 31
butt 3
aggressive 11

$T_T = 83$

ogle 10
dowdy 12
hose 18

trigger 7
cue 5
merely 3

resent 13
butt 5
aggressive 10

VIDEO TRANSCRIPT

CLASS B

(The teacher gives the students a reading called 'The Agriculture Protection Board Role in Managing the Environment for All Australians'. The teacher proceeds to read the text aloud stopping to define and explain under-lined vocabulary plus any other vocabulary students wish to know the meaning of. The teacher also summarises what she has read for the students after each paragraph. Some vocabulary is written on the w/b behind the teacher)

1.Teacher

(Reading from the text) *Most species have adapted*

TM1

themselves to highly specialised niches within the

TR+F1

environment.'.. Now niche we said was a sort of a

TF1

pocket... a little separate place where its possible for one

particular plant or animal to survive. For example, we...

we talked about koalas and how they can only survive in

TF2

a particular type of area that produces a certain type of

gum tree... so... you will have them in little pockets...

TR+F2

very small areas here there and everywhere and that's

TF3

what we mean by niche.. it's a little place that's

comfortable for one person or species of plant. (Teacher

continues reading the text aloud and summarising,

adding more information after each sentence)

2.Teacher

(Reading from the text). *Examples of such disturbances*

TM2

are the introduction of new predators. Do you know

TR1   TR+F3

what a 'predator' is? ...Predator..

3.Students   (Inaudible murmur)

                            S**F**1
4.Student h   *Er... animal that eats the small....* (gestures with hand)

                          T**F**4
5.Teacher   *An animal that may eat another animal or it may be a*

                      bird or it may be ... umm one bird or a reptile

                          S**F**2
6.Student h   *Strong eats the weak*

                          T**F**5
7.Teacher   *Strong eats the weak... yeah survival of the fittest*

                      (Teacher continues reading and eliciting the meaning of

                      words)

8.Teacher   *The prime function of the board is to protect agriculture*
                              T**M**3
                      *from introduced **pest** plant and animal <u>species'</u>.   What*
                     T**R**+**F**4   T**R**2
                      *is a **pest**? (Student) do you remember?... A **pest**?*

9.Student   (Inaudible)

                                     T**R**3
10.Teacher   *Not a ... (inaudible) a **pest**.*

                          S**F**3
11.Student h   *Something that... (Inaudible)*

12.Teacher

TF6

That's right. Something that causes us a problem or a

TF7

nuisance. Yes and for the farmer for example (inaudible)

(teacher reads aloud again)

13.Teacher

So *'The APB manages the environment by keeping*

TR4

*introduced **pest** plants and animals out of Western*

Australia. So they actually control the movement of

plants and animals from state to state'. In other words if

you were coming from another state you cannot bring

any plants or in fact with fruit your fruit has to be

discarded before you come in here to make sure they

TR+F5

*don't carry any **pests** which may be a problem here.*

TR5

*'Reducing and eliminating those **pests** which are present*

but not fully established'. So in other words, keeping

TR+F6

*control of the **pests** that we have and trying to get rid of*

them. 'Preventing the spread of weeds from one part of

the state to another uninfested area....

(Teacher keeps reading and adding/ expanding/

explaining)

13.Teacher

'Experience has taught us that introduced <u>species,</u> free

TR6

*from the diseases, **predators** and environmental*

constraints which keep their numbers in check in their

place of origin can increase here to the point of creating

Tᴍ4

a ' **plague**'... So we know that if we bring animals from

another area that they actually do very well here and so

Tʀ+F7

much so that they can become a **plague**... You all know

Tʀ+F8

what a **plague** is do you?

14.Students   (No reply)

Tʀ+F9

15.Teacher   A **plague** is ... (gasps) where animals or insects increase

in such .... at such a rate that they are a huge problem

Tʀ+F10   Tʀ+F11

not just a **pest**. A **plague** might be certain types of

insects... it might be millions of mice which eat the grass

in the farmers crop and they cause so many problems

that they can cause thousands and thousands of dollars

Tʀ+F12

worth of damage. Now a **plague** is a real disaster...

particularly in the area of agriculture and history has

Tʀ+F13

shown that we have had many **plagues** over the years

and they have destroyed people's living and so on

..erm.. we hope it won't happen here and we hope that

we would have the possibility to control it and to make

sure it doesn't happen... (reading the text again) 'Major

Tʀ7

rabbit **plagues** may be confined to the history books...'

Did anyone work out what that means?...(Student).. er..

student f?

17. Student f   (Murmurs inaudibly)

18. Teacher   *Can you remember what that means? The history*
<div align="center">TR8</div>

*books? 'Major rabbit **plagues** may be confined to the*

history books'. What does this mean? What happens in

history books?

19. Student f   (Inaudible) *... shouldn't have... shouldn't have been*

(inaudible)

20. Teacher   That's *right. History books contain what happened in the*
<div align="center">TR+F14</div>

*past and what's finished so major rabbit **plagues***

shouldn't happen in the future or we hope they wouldn't

because we should be able to control things in such a

way they should never happen again. (Reading from the
<div align="center">TR9</div>

text) *' but other potential **pests** could easily repeat the*

sad story of this and other thoughtless introductions'. So
<div align="center">TR10</div>

*hopefully we won't ever get a rabbit **plague** again but*

there are other animals around that could increase to
<div align="center">TR11</div>

***plague** proportions.* (Reading from the text) *'Many minor*
<div align="center">TR12</div>

***pests** in Europe become major problems in W.A.. So in*

other words what's a little problem in Europe may come

a huge problem in Western Australia. (From the text*) '*

Some like the sparrow and the starlings'... What were

<div align="right">*384*</div>

the sparrows and starlings? What were they ? Can you
remember?

21.Students   *Birds* (Murmured quietly)

22.Teacher   Birds. *All different types of birds... 'have demonstrated
the damage they can do in the Eastern states.'* (Teacher
goes on to explain eastern states and finish reading the
text aloud)

23.Teacher   *'The APB protects us by protecting both agriculture and
the natural environment from introduced birds, insects,
plants and other animals which have the potential to*
                       TR13
*become **pests** in W.A.' O.K.?* (Teacher sums up the
article in her own words and instructs students to finish
questions for next exercises and go on to crossword.
Students are allowed to use dictionaries if they really
need to. Students are to work individually then compare
notes at the end. The teacher monitors students. She
speaks to students I and f. Student f uses her dictionary)
A lot later (students compare their answers and discuss
them using dictionaries. The teacher gives student I
                       SF4
some guidance. Student I asks about one of the clues in
the crossword. The teacher points to the w/b while

Tf9

demonstrating the motion of an axe. Student g looks at
Sf5
the w/b too. Student h demonstrates 'chopping' and says
Sm1

'axe'. Student I laughs and writes in the word).

24.Student I   (To student g who is looking at the whiteboard) *Stone?*
                    Sf6
                    Stone? (Student g looks)

                    Sf7
25.Student f   *Seed*

26.Student I   (Looks at student h)

                    Sm2   Sr1
27.Student h   *Pip. P..I..P.*

                    Sf8
28.Student I   *P..?*

                    Sr2
29.Student h   *P...I...P* (the teacher comes to student I's aid. Student g

                    listens in then consults student h. The teacher draws a
                    Tf10
                    picture for student I. Student I finishes the picture*)*

30.Teacher   *No no it's a stone*

31.Student I   (Laughs)

32.Teacher

O.K. I've got an apple right? And inside I've got in the
TF11
middle little stones.

33.Student f

SF9
Oh, seeds

34.Teacher

TF12
Yeah, yeah. We don't call them seeds though because

seeds means we can plant the same species again...

(inaudible) (Whole group of informants attend to the

teacher) So we use the stone ... the other fruit with
TF13
stones inside are peach, apricot, plum. The stone is
TF14
bigger and we actually call it ... we call stone... a stone

fruit... With apples and oranges they're much , much
TF15
smaller... (Inaudible)

35.Student I

(Laughs) Thank you (The teacher continues to help

student i,f,g and h with other clues.)

SF10
(Student g asks student h about a clue. Student h
SF11
demonstrates the movement of an **axe** again and points
SF12
to the w/b. Student g looks at the w/b and writes)

36.Student f

(To group) Number 16?... Fish? (No reply from the

informants in the group. They look at the w/b)

37.Student f	**SF13** *Fish?*		

38.Student l	**SF14** (Points to w/b) (teacher gives the answers on a piece of paper to each group)		

SM = 2	**axe 1**	**pip 1**	
TM = 4	**niches 1** **predators 1**	**pest 1** **plague 1**	
TR =13	**predator 2** **pest 7**	**plague 4**	
SR =2	**pip 2**		
TR+F=14	**niches 2** **predator 1**	**pest 4** **plague 7**	
SR+F=0			
TF =15	**niches 3** **predator 2**	**pest 2** **axe 1**	**plague 1** **pip 6**
SF =14	**predator 2** **pest 1**	**pip 4** **fin 3**	**axe 4**
TT =23	**niches 1** **predator 4**	**pest 7** **plague 5**	**axe 1** **pip 5**
ST =21	**predator 3** **pip 8**	**plague 1** **fin 3**	**axe 4** **pest 2**

VIDEO TRANSCRIPT

CLASS C

1.Teacher *I want you to look at this word... You all know this word I think.*

(Teacher writes word on w/b)

If you know this word ...let me know.

(While writing on w/b)

2.Student *Is it one word?*

(Ss discuss together while teacher writes)

3.Student *One word?*

4.Teacher *It's one word .. It's all written together yeah. It is in fact one word. It's the longest word in the English language. Now it's so long that I cannot get it into one line. It in fact has 45 letters... 45 letters. Don't bother writing it. You'll be here all day. O.K. Who's confident ? Student j it is a medical term... Say it for me !*

5.Student j *Yes.*

6.Teacher *Right*

(Marks lines between stems of the word)

7.Student j *Microscopic*

8.Teacher	*Try breaking it up. Have a bash. First bit.*
10.Student j	*Pneumonouosis...*
	(Starts laughing)
11.Students	(All laugh)
12.Student j	*Umm...just...*
13.Teacher	*Keep going...Just fast.*
14.Student j	*Pneumo .. .onoutra ...micro ...optic ...silico... volcano.*
15.Teacher	*O.K. I want someone to do it faster. With confidence.*
	Pneumonoultramicroscopicsilicovolcanoconiosis.
	Student m give it a go.
16.Student m	(inaudible)
17.Teacher	*Yes, give it your best shot.*
18.Student m	*Pneumonoultramicro...scopic.. .silico ... v o l c a n o . . .*
	coni...osis.
19.Teacher	*Very good.O.K. We'll have one try then all doing it together.*
	I'll do it first and follow on after me.
	Pneumonoultramicroscopicsilicovolcanoconiosis.
	Go!
20.Students	*Pneumonoultramicroscopicsilicovolcanoconiosis.*(all laugh)
21.Teacher	*Great. It actually exists this word. Student j you're the medical*
	expert. Have you any idea what it means?
22.Student j	*Pneumo is pneumoconosis...mono is scopic maybe...*
	ultra (inaudible) ...micro..microscope or microscopic and
	silico...silicosis...volcano... I don't know...

(Inaudible)

23. Teacher   *Now you notice like because of the medical background student j's able to break this word down and knows what different parts of it mean the* (inaudible)...*the advantage is if you know what the parts mean you put it all together... you can have a fairly good idea of what the whole thing means. I'll give you your own copy ...*

(Students work on the first exercise making a definition of the word by filling in the gaps).

SOME TIME LATER

24. Teacher   *Now check with each other when you think your version is correct.*

25. Students   (Check orally together)

26. Teacher   (Helps student k) *Micro...This is ultra micro you see...ah ha. What was the next part here?...That's the one.*

27. Student k   What *does it mean?* (Points to word in text...inhaled)

28. Teacher   *Inhale?* (He then demonstrates)

29. Student k   (laughs)...*breathe...aah.*

30. Teacher   *Exhale* (demonstrates)... *inhale* (demonstrates) ...*exhale*

(Demonstrates)...*total opposites.*

(Student l and student r tune in to teacher also)

Number 9...it isn't...but we know that it's 'osis'...It ends with an 'osis'.It's...(inaudible)...*Now which...Right! Right! What's your condition? Then describe it...O.K. You've broken it down? What do you reckon? Now you're describing this...How's it described? What are the adjectives?*

There's another word before 'small'.

31.Students   (Inaudible response)

32.Teacher   *Right! That's it.*

(Students go back to work. Teacher talks to one student)

33.Teacher   *Did you get that in a verb? Did you see that for most of the paper it's stems?* (Inaudible) *You see exercises* (talking to one student) . *So you see 'ex' is 'out'...'interior'...What's the opposite?...the 'inside'?...the 'inside'. So 'ex' is a prefix.*

(Teacher asks students to finish the task)

34.Teacher   *Student q can I ask you... if you combine these words...*(inaudible)...*these word elements...what is this disease pneumonoultramicroscopicsilicovolcanoconiosis ?*

35.Student q   (hesitates) *Diseases?*

36. Teacher	*Mmmm...It's a what?*
37. Student q	*It's a lung disease.*
38. Teacher	*Hmmmm. Now when you filled in the blanks here what did you write?*
39. Student q	*A condition of the lungs.*
40. Teacher	*I like that. A condition of the lungs. Fair enough.*
41. Student q	*Caused when extremely small particles of silicon dust have...*
42. Teacher	*It's a condition of the lungs...*(expires noisily) *caused when extremely small particles of silicon dust are* (breathes in noisily)*...inhaled. Now unless we had broken that word up there's no way that we would know the meaning of that word. O.K. we'll come back to practice of long words like that hopefully later on but in the meantime...*

(The teacher goes on to explain the listening task. Students listen. After the first listening (see transcript attached) the teacher explains that they can listen again and pauses the tape after each couple of sentences. During the second listening student p and student arrive late . the teacher sums up the listening at the end. Students check the words they have written in the spaces with their partners).

43.Teacher   (Overhears student r and student I) Aaaha. *Do you know the difference between learned and learnt? Actually in English what we tend to do is use the passive voice whereas the 'ed' we tend to use on the ends of words but also you will find in the United States that they have some difficulty with 'learned' and 'learnt'.*

44.Student I   *Learned, learnt...Learned, learnt? Or learned, learned, learnt?*

45.Teacher   *Learn, learned, learnt.*

46.Student   *Learn...learned...learnt.*

47.Teacher   Got *it? Learn... learned ...learnt. O.K. people let's look at it and see if we all agree. I hope there are going to be no arguments. O.K. student k. You're in the frame. The first five are yours. Line 1.* (THE Teacher shines the exercise up onto the w/b using an oht and a projector. He writes up the words as offered).

48.Student k   *Aaah...research.*

49.Teacher   *Research in that sense is that a noun or a verb?*

50.Student k   *Aaah verb...aaah sorry... a noun.*

51.Teacher   *A noun . What's the verb?*

52.Student r   *To research.*

53.Teacher   *It's the same. You're quite right. The noun is research. The verb is 'to research'. O.K. Number 2. What did we get?*

54.Student k   *Towards.*

55.Teacher	Towards...*Towards the learning of English vocabulary. The results were surprising.*
56.Student k	*I mention...*
57.Teacher	*Say that again.*
58.Student k	*I mention.*
59.Teacher	*First word?*
60.Student k	*I...wrong?...I'll? I'll?...I'll?*
61.Teacher	*It's 'I'll' yes. It was the future. I'll mention...I'll mention 3 of them. O.K. line 4. 'Firstly most of the students think that nearly every word in English...?*
62.Student k	*Has?*
63.Teacher	*Has...Now that one wasn't very difficult!' 'Has' just one meaning. Now this is of course completely contrary to the facts. The student will frequently find seven or even eight meanings listed...*
64.Student k	*'For quite'...*
65.Teacher	(Listens and thinks) *Yeah.'For quite'.*
66.Student k	*Is that right?*
67.Teacher	*Yeah. In that sense he says,'meanings listed for quite simple words.'Look at this 'quite' here. Can anybody give me another word that we could use instead of 'quite' ?*
68.Student	*Very?*
69.Student	*No..no*
70.Students	(Inaudible suggestions) *Completely?*

71. Teacher	*Absolutely...very good. O.K. Starts with 'r' ends with 'r'.*
72. Student	*Regular? (Ss laugh)*
73. Teacher	*There's a 't' there. There's an 'h' there.*
74. Students	*Rather.*
75. Teacher	*Thank you or 'rather'. So 'rather' and 'quite' in this sense are practically the same. Some rather simple words. O.K. You've done your stuff student k. Well done! Student j let's move onto you then. Line 8.*
76. Student j	*These.*
77. Teacher	*These. O.K. 'While these...' Remember always listen for the difference between ' this, these, those'. 'These students...' O.K.*
78. Student s	*Have.*
79. Teacher	*Maybe...*
80. Student j	*Have are...that are...*
81. Student q	*There.*
82. Student j	*There.*
83. Teacher	*(Listens again) That they're...They're's your contraction. ...that they're all science students. Keep going student j.*
84. Student j	*In there.*
85. Teacher	*In there. Yes.*
86. Students	*(Echo) There. There.*
87. Teacher	*Right. Notice that possessive belonging to they'll... They're here . O.K. They're.*

88.Student j   *Were taught...were taught.*

89.Teacher   *Yes. Passive voice. Were taught.*

90.Student k   *Just taught.*

91.Teacher   *Were taught. It's the passive voice. See they were saying here ..umm...'The way in which these students...' This is actually the object isn't it?.'were taught'...something was done to the students...they were taught but we put it as the passive voice. We put the object first. These students were taught ...yeah...This pen was tapped on the board. Put the object first and the verb afterwards. O.K.? ...were taught. Keep going student j.*

92.Student j   *Learned?*

93.Teacher   *Now which one are you going to opt for? There's two ways of doing it.*

94.Student j   (Inaudible). *'ed'.*

95.Teacher   *I prefer 'ed' but you have to be aware that 'learnt' with a 't' is equally acceptable.*

96.Student l   *But in the tape he said 'learnt' right?*

97. Teacher   *I'm not sure. I was ...I was trying to listen for the difference but it's so vague this difference you just get (inaudible). I think he probably did say more a 't'. I tend to agree with you. O.K. Now we come up to line 15. Ummm...student r . What did you get* TF1 *on 15 here? ' The second attitude that....'*
                     SF1
98.Student r   *I couldn't catch the word but 'merged' or something...*

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	TF2
99. Teacher	*Merged?*
	SF2
100. Student r	*It starts with 'm'* (all laugh)
	TF3
101. Teacher	*Merged or something. It is ' merged' but with a letter in front*
	of it.
	SM1
102. Student	*emerge.*
	TR1
103. Teacher	*'Emerged'.*(as writes it up).*'The second attitude that*
	TR2
	emerged'.... Aaah.
104. Student	(Inaudible)
	TF4
105. Teacher	*AAh...good question. What does it mean? I was hoping you'd*
	tell me...
	SF3
106. Student r	*Emergency. There is a ...no?*(laughs)
107. Teacher	*Good thinking but not really...*
	SF4
108. Student q	*Included.*
	TF5
109. Teacher	*Included...mmmm ...*
	SF5
110. Student	*It comes out*
	TF6 **T**R3
111. Teacher	*It comes out or comes to the surface...Yes..emerged. I s'pose*
	TF7 **T**R4
	you'd like to say 'came out'...emerged...came out. You know
	TF8
	if you see a spider in its little hole and it pops its head out. It
	TR+F1 **T**F9
	emerges out of its hole. It's to come out you see.
112. Students	*Mmmmm.*
	TR5
113. Teacher	*Emerge.*

114.Student j	SF6 *Maybe exist.*
115.Teacher	TF10 *Exist? No. Exist is the same as ' to be'. 'To be' and to exist.* TF11 *No this has the physical idea of something coming out of* TF12 *something. One minute you can ..you can't see it and then* *suddenly you can see it.*
116.Student k	SF7 *It appears.*
117.Teacher	TF13 TF14 *It appears. Right. Why didn't I think of that? Appeared....well* TF15 *done student k ! Appeared is obviously much better than* *came out. O.K. student r...still hanging in ...19.*
118.Student r	*Umm...19?*
119.Teacher	*Yeah...line 19.' There are...'*
120.Students	*You said 18.*
121.Teacher	*Sorry! 18*
122.Student r	*Other.*
123.Teacher	*Other..'other qualities in translation which we...' What's next?*
124.Student r	*AAh... I missed it.*
125.Teacher	*You missed it... I heard somebody say that they weren't sure* *of it. What was it? ' Which we..?*
126.Student	*(Inaudible)*
127.Student	*Will.*
128.Teacher	*I'll grant you it starts with a 'w'. If it was what you say it is 'will'* *then she'd talk about it wouldn't she ? She said ...mmm...'* *there are other difficulties in translation which we will mention*

here?' But then she doesn't go on to mention any other difficulties so it has to have a negative idea.

129.Students *Will not. Won't.*

130.Teacher *Won't. Will not becoming won't.' Which we won't mention here.'*

131.Teacher *(teacher reads lines 20 and 21) 'Translation machines which tried to work on this....student r ?*

132.Student r *(laughs) Principle.*

133.Teacher *Now before I write this word down who remembers the two aspects of 'principle' and the two different spellings?*

134.Students *Aah...*

135.Teacher *Aaah...*

136.Student *(Inaudible)*

137.Teacher *Yes.*

138.Student j *Principal of a school.*

139.Teacher *Now which one is that now student j?*

140.Student j *'a'.*

141.Teacher *The one that we want today is ?*

142.Student j *'I'...'sel'.*

143.Teacher *'le'. Yes. 'Principle'. P..r..i..n..c..i..p..l..e...Meaning a central theory or something on which you base findings. Principle. You remember that word came up the other day too?*

144.Students *Yes.*

145.Teacher *It's obviously a common academic word so note that*

difference between 'principal'... headmaster of the school and 'principle'. O.K. we're nearly there. 23.O.K. Student m can you take over?

146.Student m   *Another?*

147.Teacher   *Showed?..Sorry? Say it again.*

148.Student m   *Another.*

149.Teacher   *Another. O.K. We're running out of space here.*

150.Student m   *Untrue.*

151.Teacher   *Untrue. Untrue. Keep going.*

152.Student m   *As well as...*

153.Teacher   *27. As well as .You're at the top of your marks...as well as..*

154.Student m   *Use.*

155.Teacher   *No. It was a passive voice.*

156.Student m   *'He use..'*

156.Teacher   *I can't hear the end of that word student m.*

158.Student m   *'He use to...He use to...'*

159.Student q   *Used.*

160.Student m   (inaudible)

161.Teacher   *Don't be afraid of it O.K. 'He used..' O.K. 'He used... He used...' You don't have to go 'uset* (he exaggerates the word and spits the final 't' sound) *but it helps ends of words* (laughs). *Sorry student k.*

162.Students   (All laugh)

163.Teacher   *Oh my...O.K. Student m. Let's finish it off. 29.*

164.Student m   *One.*

165.Students   *Ones.*

166.Teacher   *That's right. Ones. Again the possessive. Belonging to one. Ones. It sounds like the queen speaking doesn't it?*

167.Student k   *Ones?*

168.Teacher   *You know how the queen of England never talks about 'I'. She talks about 'one'. 'One' is frightfully pleased to be here in Australia. It's a royal way of talking. It's the same as 'I'm'. 'One'. It's a very upper class ...*

169.Student k   *Is it a subject?*

170.Teacher   *Mmm. 'Ones' in the sense of here... 'What is the best way to increase 'ones' vocabulary? What should it really be? 'Ones' is correct but there's something better. 'What is the best way to increase....?'*

171.Student k   (inaudible)

172.Students   *Students'*

173.Teacher   *You could say students... or ' your vocabulary'. 'What's the best way to improve your or the students' vocabulary?' And the last three words interest me. 'Observation, imitation...?*

174.Students   *Repetition.*

175.Teacher   *Repetition. O.K. Well done people. O.K. The last 3 words. 'Observation, imitation, repetition. 3 lines. Yeah...we agree. 3 lines . Alright. Student I*

176.Student I   *Yes?*

177.Teacher	*Observation...noun. Verb?*
178.Student I	*Observe.*
179.Teacher	*Adjective?*
180.Student I	*Observatory.*
181.Teacher	*Someone help her.*
182.Students	(INAUDIBLE SUGGESTIONS)
183.Student p	*Observant.*
184.Teacher	*Ooh...Yes it would be the same name in Spanish won't it? Observant. Observant....Observant... Observation. To observe someone who observes is observant O.K.? O.K. That's the noun. There's our verb and here is our adjective.* (Ss write it down). *Now student I I'm going to be very unfair on you .Look at the second word..'imitation'.....*
185.Student I	*Imitate.*
186.Teacher	*I like it . Adjective?*
187.Student I	*Imitative.*
188.Teacher	*Imitative . Very good . Yes. Imitative. For those who don't know that one , 'imitative' is the adjective.*(inaudible). *Imitative. I thought you might be tempted to say 'imitant'...after 'observant'.And lastly...O.K. Student p. It was repetition'...noun. Verb?*
189.Student p	*Repeat.*
190.Teacher	*Adjective?*
191.Student p	*Repetitive.*

192.Teacher   *Repetitive. Right. Very well done. So we've 'repeat ' there .*

'Repetition'. And finally 'repetitive'. Excellent! Out of interest

did anybody get them all correct? All the gaps filled in

correctly? It doesn't matter. I wasn't going to ask. Be shy if

you like.

(The teacher gives instructions for the next task.

Exercise 5. Ss do the task silently, occasionally

consulting with each other. The teacher interjects

giving further instructions now and again. He tells

student j and student m to reconsider number 4 and

student k to reconsider number 2 along with student l.

He helps student r with 'practically' and repeats this

word several times)

Some time later...

193.Teacher   *O.K. people. The problem seems to be 2 and 4 .Numbers 2*

and 4. So this is interesting 'cause they're essentially quite

simple words 'then' but it has a number of possibilities. The

word 'then' and 4 ...'practically'. Many of you are going for

this 'in a practical manner'...it won't work.

(Ss continue again with some encouragement from the teacher)

Some time later...

194.Teacher	*Student n! If I can come to you . The word 'glance'[TM3] in line 5 has 3 possible meanings in the dictionary. Which one did you[TF1] choose? 1,2, or 3?*
195.Student n	[SF1] *2*
196.Teacher	*You chose 2. 'A quick look' . Take a glance at something.[TR+F1] You're absolutely correct of course!*
	Now comes the problem. Number 2.'Then' in line 8.Let's look at it in context. (Reads the line from the transcript twice). Student j , I hate to do it to you. 1,2 or 3?
197.Student j	*3.*
198.Teacher	*Ooh, well done! Yes it's number 3 . ' In that case' or ' that being so' , if you say ' in that case' what's the problem with 'these students' ? It's not anything to do with time. First I came to class. Then I did some exercises. It's not that concept.3 was easy because we talked about it before. Student k 'emerge '...1,2 or 3?*
199.Student k	*2.*
200.Teacher	*2. Yes it's emerge...an idea...a fact emerged...it became known...it came out. 4's the one that bothers you. Student*

(inaudible) *'practically' line 16. Look at the context. (The teacher reads the sentence it appears in). ' Practically' .1,2 or 3?*

201.Student   (Thinks for a long time).

202.Teacher   *I need a decision student.*

203.Student   *3.*

204.Teacher   *Which one ? Perfect.3. It's another word for 'almost' or 'nearly'. Well done! Well done! 'Almost' or 'nearly'.I noticed that many of you took the word and looked for a meaning that had the word 'practical' in it. It's good thinking but it doesn't always work out . And Student p... last one. 'Principle' .In this sense what does it mean?*

205.Student p   *Number 1...general law shown in the working of a machine.*

206.Teacher   *Yes. A general law . It's number 1 O.K. So just check again. 'Glance' is 2.'Then' is 3.'Emerge' is 2. "practically' is 3 . 'Principle' is 1. And just to tidy this up they've asked us ...because we'll be using dictionaries a bit later on.... what did the abbreviations beside the word mean? 'n'?*

207.Students   *Noun.*

208.Teacher   *Adv ?*

209.Students   *Adverb.*

210.Teacher   *Adverb. We've got it. What about v,i, ?*

211.Students   *Verb intransitive.*

212.Teacher   *Put that round the other way.*

213.Student I	*Verb transitive.*
214.Teacher	*No put it round the other way.*
215.Student q	*Transitive.*
216.Students	*Intransitive verb.*
217.Teacher	*What does that mean? What is an intransitive verb?*
218.Student I	*Intransitive verbs don't need an object.*
219.Teacher	*It's not that they don't need them. It's very difficult to explain...(inaudible)..We divide verbs into transitive and intransitive. Transitive.. intransitive verbs...there's an example...the bench. If I use 'to hit' I can actually say 'to hit ' something. ... 'To hit' the table...'to hit ' the student. I can put* **TR6** *an object after it but with something like 'emerge' I can't say* **TR+F6** *'to emerge' the door. You can say 'to emerge' but I can't put* **TR+F7** *an object after an intransitive verb ..right? Does that make sense?*
220.Students	*Yes.*
221.Teacher	*Aaah good! And last one up we get to beside 'principle'. You need to know this in a dictionary.*
223.Student q	*Countable.*
224.Teacher	*Exactly student q. It's a countable. We can have a 'principle' or 'principles'. 'Principles'...countable.*

(Revision stage)

225.Teacher	Alright! You happy? Now we looked at some fairly complex words today . Can anybody remember the very first word we started with? Don't look back! What was the first word we started with today? Can you remember any of it?
226.Students	Pneumo...
227.Teacher	Pneumo...And what came next? Pneumo...
228.Students	Mono...
229.Teacher	Mono...I'm not sure...ultra...
230.Students	(Confusion of suggestions).
231.Teacher	Ultra..Pneumo..mono..ultra..
232.Students	Scopic.
233.Teacher	Scopic..
234.Students	Silico...
235.Teacher	(imitates a volcano erupting)
236.Students	Volcano...
237.Teacher	Volcano..coni..
238.Students	Sis...
239.Teacher	Volcaniosis....Pneumonoultramicroscopicsilicovolcanoconio sis. (Student p missed the word and asks the other ss what it means. He tries to say it)
240.Teacher	It's a very strange disease. It affects miners who work in mines where there is silicon dust and they breathe it into their

lungs. It's one word student p. It's the longest word in the English language. 45 letters.

241.Student p   *Is this 'silicosis'?*

242.Teacher   *This is a particular form of 'silicosis' because you can have silicosis from coal dust. This is from...This isn't particularly from coal dust.*

243.Student p   *Asbestos?*

244.Teacher   *Could be asbestos. Yeah...*

245.Student k   *Do you have some aberrations?*

246.Teacher   *Don't think so. Don't think so...but it's a big word. But looking this like the way we divided that word up into 'ultra ..mono ..caniosis ... Let's look at some of these stems and affixes now.*

(Teacher gives out another exercise sheet)

We want to be able to use prefixes ,stems and suffixes. Even there are clues. (Writes these words on the w/b) As soon as you can see a word with 'pre 'in front of it Student p ,what does it suggest to you?

247.Student p   *The first word again?*

248.Teacher   *Say it again.*

249.Student p   *Sorry I didn't...*

250.Teacher   *Sorry...(repeats the question).*

251.Student p   *Before.*

252.Teacher   *In front of...before or in front of. Now we're going to look at*

some more prefixes like this. We also have words that we can add to the ends. Things that we call ' suffixes'. 'Suffixes'. So we've got 'pre' before and 'suffixes' go after. (Writes this up on w/b) *And we've got quite a list here...*(pointing to the piece of material) *and a couple of examples. Now what I'd like you to do is to just fairly quickly read this little piece of on stems and affixes. I mean we're told that sometimes you can get a word through context and sometimes like pneumonoultramicroscopic.... you have to break it up to find out what it means.*

253. Student p   *What is affix* (inaudible) *exactly? Same as suffixes?*

(HE LOOKS PUZZLED)

254. Teacher   *Oh stems. That's the very core of the word that you can attach things around. you know like here* (points to exercise) *the stem, it gives you an example...The stem for instance is 'pay'. If you put a prefix in front of it ...'repay'. Put a suffix after it like 'ment'..you've got 'repayment'. So 're' is your prefix...'ment' is the suffix....there's your stem* (Points to a word in the exercise). *It's a bit like you know children's leggo....You know those little blocks of leggo....you can actually do it with words...clip them together to make new words.*

(The teacher explains the instructions for the exercise).

254.Teacher	*I'd like you to have a bash...have a go...at the little exercise that appears on page 10. It asks you to think about prefixes.*
	(Ss do the exercise silently)
255.Teacher	*Go back to your prefixes and stems and if you're looking for something that perhaps ..'spec ' ..*
256.Student p	*'Spec' there is no reference.*
257.Teacher	*Well then look into stems. The stems of words. Is there something with 'spec'? Now does that give you a clue as to what it might mean?*
258.Student p	*'Spectacle' in Spanish is show.*
259.Teacher	*'Spectacle'* (with french pronunciation) . *It's exactment parle en Francais... something... 'spectacle'* (french pronunciation again)...*but it is also in English we have another meaning for 'spectacles'.Student?*
260.Student p	(inaudible)
261.Teacher	*Aaah student, student j, and student n would know what these were.*
262.Student p	*What? Come on student!*
263.Teacher	*Spectacles. Student, student j and student n would know this word.* (These ss are all wearing glasses).
264. Students	*Glasses.*
265.Student p	*Oh glasses.*

266.Students	*Glasses.* (Student, student j and student n all point to their glasses)
267.Teacher	*Well done people. Glasses...(inaudible)...O.K.*

SOME TIME LATER

268.Teacher	*O.K. We're going to try and tie the whole thing up now if we can. I'm sure you're hanging out for a cup of coffee...hanging out for...a cup of coffee* (says this very deliberately).*I'm sure you're hanging out for a cup of coffee.*
269.Student	*Hanging out for .....*
270.Student p	*It's similar to hang...(inaudible)*
271.Teacher	*It's like ...(inaudible)...Phew..I'm hanging out for a cup of coffee* (acts this scenario out)
272.Student p	*Expects?*
273.Student	*Forgets?*
274.Student	*To have?*
275.Student I	*To have a ...To need a coffee break.*
276.Teacher	*Yes. ' To be hanging out for' to I'm needing...I'm looking forward to...I'm wanting .... to need...to want. Very American expression but you will meet it in Australia. 'To hang out for'. God I'm hanging out for a beer! I'm hanging out for something.*
277.Student	*I'm hanging out for a beer.*

278.Teacher   *Are you hanging out for a beer too student?*

(Teacher begins giving feedback on the exercise)

279.Teacher   *Spectacles we agreed was glasses... glasses...glasses... What about concentric? Now 'con' meaning ' with'.*

280.Students   (offer suggestions).

281.Teacher   *Who says 2? Who says 4? Hands up !*

The 2s have it. It's number 2 . Circles inside each other. Concentric.

282.Student p   *The same circle.*

283.Teacher   *Mmmm...The same centre. Yes centre. O.K. © ...what did we get? Inspected?*

284.Students   (offer suggestions)

285.Student   *3.*

286.Teacher   *3...'has to be examined closely'. And probably the hardest one was exercise 2 there. Which words did the...did the prefix 'in' mean not?...And I tell you now there are only 3 of those words where 'in' meant ' not'.*

287.Students   (offer suggestions)

288.Teacher   *Which ones are those again?*

289.Students   (Inaudible)

290.Teacher   *O.K. I'll go with inactive being not active. I'll go with invisible being not visible. If I go with invaluable does that mean not*

valuable?

291.Student j   *No...very valuable.*

292.Teacher   *It means very valuable. Thank you.*

(Discussion between ss)

293.Student   *Invaluable is very valuable.*

294.Teacher   (thinking) *Ummm...I'm just thinking of the other one.....*

295.Students   (suggestions)

296.Teacher   *Yeah...yeah...*(still thinking)*...but watch invaluable. Don't*

assume that 'in' will always mean 'not'.

297.Student p   *Flammable is not ...Flammable is the same as inflammable.*

298.Student   *Opposite.*

299.Student p   *Some flame...a flame is a fire and something inflammable is*

something that can become...

300.Teacher   *So in fact how many negatives do we have here?*

SM1   SR1
301.Student p   *Insane...We have 3...insane, inactive, invisible.*

                        TR1
302.Teacher   *So we've got inactive, invisible and insane.*

SR+F1
303.Student r   *Insane?*

304.Teacher   *You know someone who is 'sane' is normal. Someone who is*

TR+F1
'insane'   is   not   normal.   Look   at   English

            TR+F2
teachers...insane..O.K....not normal. So the only 3 we have

      TR2
are 'insane','inactive','invisible'. O.K. people we have to stop

there.

SF1
305.Student r   *Which ones ?*

306.Teacher *That one, that one and that one. Only 3 . Remember I said there were 3 negatives.*

307.Student r *Yes.*

(Teacher gives exercises 2,3 pp 11,12 as homework)

308.Teacher *Student j, what did they say in the talk today? the best way to leam vocabulary was...? 3 words.*

309.Students *Imitation, repeat, observe.*

310.Teacher *Imitate people.*

311.Students *Repeat.*

312 Teacher *To repeat people.*

313.Students *Observation.*

314.Teacher *And you observe people. So you're constantly listening, imitating and repeating and if you do that with vocabulary you'll be alright.*

$T_M = 1$	glance		
$S_M = 2$	emerge (d)	insane	
$T_R = 8$	emerge 6	insane 2	
$S_R = 1$	insane 1		
$T_{R+F} = 11$	emerge 7	glance 2	insane 2
$S_{R+F} = 1$	insane 1		
$T_F = 18$	emerge 16	insane 1	glance 1
$S_F = 10$	emerge 8	insane 1	glance 1
$T_T = 21$	insane 3	emerge 15	glance 3
$S_T = 14$	insane 3	emerge 10	glance 1

VIDEO TRANSCRIPT

CLASS D

(At the beginning the teacher gives an example of how to guess the meaning of words from context using imaginary words e.g. what do you think a ' whosis' is ? students are given 4 alternatives to choose from. They decide if each one is possible, impossible or improbable. The teacher then gives an exercise and does the first few examples with the students using the same procedure)

1.Teacher   *Have a look at the first word..first sentence..and he was a*
$\text{T}_\text{M}1$
conjurer. Just have a look and do just the first sentence to

begin with.

(Students do exercise quietly)

So ask yourself questions ..Is it possible?..probable?..So
$\text{T}_\text{R}1$
what have you got for the first sentence ..He was a

conjurer? ...What have you got after singer?

2.Students   (Inaudible)

3.Teacher   *Possible?...After lawyer?*

4.Students   (Inaudible)

$\text{S}_\text{R}1$
5.Students   *Possible? Conjurer?*
$\text{S}_\text{F}1$
6.Students   *Possible*
$\text{T}_\text{R}2$
7.Teacher   *He was a conjurer who entertained people. Put in there*

what you think.

(Students work quietly)

417

	TR3
8.Teacher	*So we've got then...He was a conjurer who entertained*
	TF1
	people...A singer?
	SF2
9.Students	*Possible*
	TF2
10.Teacher	*A lawyer?*
	SF3
11.Students	*Impossible*
	TR+F1
12.Teacher	*Im...probable. A conjurer?*
	SF4
13.Students	*Possible*
14.Teacher	*Right now go and do the next one.*

(Students move onto the next exercise working individually)

	TR4
15.Teacher	*So what have we got there? He was a conjurer who*
	entertained children by pulling rabbits out of a hat and other
	TF3
	magical tricks. A singer?
	SF5
16.Students	*Impossible*
	TR+F2
17.Teacher	*A conjurer?*
	SF6
18.Students	*Probable*
	TR+F3
19.Teacher	So what is the meaning of the word conjurer? What does a
	TR+F4
	SF7
	conjurer do?
20.Students	(MUMBLING) Entertains....probably entertains.
	TF4
21.Teacher	Yes...entertains by what?
	SF8
22.Students	(ALL OFFER INAUDIBLE SUGGESTIONS TOGETHER)
23.Teacher	Yes. Could you think of another word that...that has a
	TR+F5
	meaning like conjurer?

SF9

24.Students	*Magician*
	<center>**TF5**</center>
25.Teacher	*Magician ..yes..that's right...He was a magician...(LONG*
	PAUSE). All right now go on and have a look at the next
	<center>**TR5**</center>
	sentence...the next word. We've done conjurer. Now
	<center>**TR+F6** **TF6**</center>
	conjurer is a person who entertains . He's a magician,
	<center>**TF7** **TF8**</center>
	right? He does rabbits out of hats. Maybe he eats fire. Now
	the next one. Larry was a ventriloquist
	...ventriloquist...vent...trilo..quist (pronounces it carefully for
	the students exaggerating the stress). *We'll come back*
	later and get some more information on these words and
	you can look at your dictionaries after. Larry was a
	ventriloquist for ten years. Right have a look and see what
	you think about those sentences. (Students work silently
	and individually)
26.Teacher	*How are you going? Have you finished doing a*
	ventriloquist? Do you know what a ventriloquist is?
27.Students	(No reply)
28.Teacher	(Monitors students individually) *O.K. if you've got your*
	definition for ventriloquist...Who has got that far? Student s
	what is a ventriloquist?
29.Student	*Mmmm. A person who makes his voice appear to come*
	from someone else.
30.Teacher	*Yes. Has anyone ever seen a ventriloquist ? And they've*
	got...the ventriloquist has got a .. a doll...or the doll can be

called a puppet ...and they make their mouth move and

they throw their voice don't they...they entertain people .

TM1
Now the next are...go on to do lyrics (Emphasises the

word) *lyrics* (again exaggerates sounds to indicate

pronunciation)

(Students work quietly again individually)

31.Teacher   *Well some of you worked very swiftly on that . So....are you*
                  TR+F1
                  down to knowing what lyrics are?

32.Students   *Yes*
                  TR+F2

33.Teacher   *What are lyrics?*
                  SF1

34.Student v   *Er...words of a song.*

35.Teacher   *Words of a song...yes...yes. And ..er..it's sometimes quite*
                  TR+F3
                  difficult isn't it to find out the lyrics of song because you

                  have to listen and listen and listen and some of them aren't

                  so clear at times... Erm...it's actually a very good way of
                  TR+F4
                  learning English by listening to the lyrics of songs . O.k.

                  over the page then. Do the next one which is
                  TM1   TR1
                  understudy...under..study

                  (Emphasises pronunciation again)

                  (Students work quietly and individually. The teacher

                  monitors and helps a student. A student confers with the

                  student next to him)

36.Teacher   *Do you know what a scriptwriter is?*

37.Student   (Inaudible)

38.Teacher   *Do you know ? Do you...? You don't know. That*

one...maybe leave. (INAUDIBLE) Let's look at that one .
                      TR2
The understudy was at the university theatre. Now the

first...understudy graduate, scriptwriter are all possible
          TR3
                              TR4
aren't they in the first one ? The understudy knew very
                                        TR+F1
word of the whole play. Now if ...you look at understudy...

well it's possible ...because...do you know what an
 TR+F2
understudy is ?

39.Students   (inaudible)

40.Teacher   *Not yet. So it's possible. The undergraduate. Do you think*

any undergraduate would know every word in a whole

play?

41.Students   *No*

42.Teacher   *It's improbable isn't it? Improbable. Now the scriptwriter...*

Do you know what a scriptwriter is ?

43.Students   (A few replies)

44.Teacher   *The person who wrote the play. So do you think the person*

who wrote the play would know all the words?

45. Students   (Unsure looks and a few murmurs)

46.Teacher   *It's possible. It's possible. Alright. Now we come down to*

the next one . The understudy played the leading role when

the star broke her leg. So...

47.Students   (Inaudible suggestions)

48.Teacher	**Tʀ+F3** *What do you think an understudy is? What do you think an* **Tʀ+F4** *understudy might be ?*

SF1

49.Student   *A stand-in.*

Tꜰ1

50.Teacher   *A stand-in . Yes...*

51.Student   (Inaudible)

Tꜰ2

52.Teacher   *Yes they study...They are there in case something*

happens. They learn the whole part in case something

Tꜰ3

happens. They learn the whole part in case something

Tʀ+F5

happens to the actress... And stars always have

understudies.

53.Student   (Inaudible)

54.Teacher   *Yes it's an interesting word... I don't really know ...It isn't*

Tꜰ4

that they study under but they do study everything about

Tꜰ5

the play and they are under the star. They're not as good

Tꜰ6

as the star, maybe... sometimes they prove to be better

than the star and sometimes it's a good opportunity if you're

an understudy and if something happens to the star it might

be your just the chance in a lifetime for you.

55.Student   *Choreography*

56.Student   *Choreography*

57.Teacher   *Right.*(students work individually)

58.Teacher   *Can anybody tell me yet what they think the choreography*

of a ballet is?

59.Students   *The dance steps*

60.Teacher   *The dance steps. Yes. The movements, the steps and of course if the stage was too small and they had lots of steps they'd have ...maybe he has to rearrange the dance steps because er... because the stage was too small... O.K. ... Ummm . Just let's have a look at me for the moment. What is a ventriloquist? What do you think a ventriloquist is?*

61.Student   (No reply)

62.Teacher   *Don't look at your definition now just see if you can remember... can you?*

63.Student   (Again no reply)

64.Teacher   *Can you remember?*

65.Student   (Indicates no)

66.Teacher   *No , alright. Ummm. Can anybody remember what a ventriloquist does?*

67.Student   (Inaudible)

68.Teacher   *Yes, he has a puppet.*

69.Student   *Err...He has puppet*

70.Teacher   *Yes, he uses a puppet. Right!*

71.Student   *He does talking....*

72.Teacher   *Yes. He talks to the puppet but what does he make his voice do?*

73.Student   (Inaudible) *...speak*

74. Teacher	*Yes. Usually the ventriloquist pinches his*
	mouth....(mumbles like a ventriloquist)*. He can throw his*
	voice (gestures with throwing movement of hand) *and make*
	it seem as though it's coming from another place. O.K.
	TR+F7 TR+F8
	What's a conjurer? Can anybody tell me what a conjurer
	does?

	SF10
75. Students	*Magician*
	TF9 TR+F5
76. Teacher	*He's a magician. Right. Umm...what are lyrics?*
	SF2
77. Students	(Mumble) *Words to song*
78. Teacher	*Umm...what's a choreography?*
79. Students	*The dance steps*
	TR+F6
80. Teacher	*The dance steps... And what's a understudy do?*
81. Students	(All mumble inaudibly)
	TR+F7
82. Teacher	*O.K. student w . What does an understudy do?*
	SF2
83. Student	(Mumbles inaudible answer)*... if he can't.*
	TF7
84. Teacher	*Yes, he takes the place of an ... of the actress... if*
	something happens to the actor or actress .O.K. Alright...
	hope we've got... Now what I'd like you to do of course is
	to write .... those words and umm... record them in your
	vocabulary list and put any other information ... the
	definition... any other information that you would normally
	do when you record them....

(Teacher instructs them to record words and do the next exercise either individually or with the person next to them. Students are required to group words according to their own reasons. They are allowed to use dictionaries. Most of them work individually with dictionaries. The teacher monitors and gives help as they write. Some students seek her help).

Some Time Later

85. Teacher   *O.K. Have most of you finished?*

86. Students   (No reply)

87. Teacher   *Well let's see.... who's not finished?*

88. Students   (Hands up)

89. Teacher   *Well I really don't want to give you much time but maybe I'll give you 2 minutes...*

(A few minutes later)

90. Teacher   *Student v could you just read me one group of words ... one group of words that you've put together*

91. Student v   (Looks puzzled)

92. Teacher   *Yeah just read them out.*
                            Sм1
93. Student v   *Ballet, perform, foyer, opera ticket, interval.*

94. Teacher   *So you've got ballet*

95. Student v   *Performance*

96. Teacher   *Performance...yeah... performance*

	SR1
97.Student v	*Foyer*
	TR1
98.Teacher	*Foyer, yes*
99.Student v	*Opera*
100.Teacher	*Opera*
101.Student v	*Ticket* (mispronounced)
102.Teacher	(LOOKS PUZZLED)
103.Student v	*Ticket*
104.Teacher	*Alright! Why did you put those words together?*
105.Student v	*I think this big words so... and not many words*
106.Teacher	*Yes. Ummm... I can see the ballet... yes... and you perform ballet?*
107.Student v	*Yes*

<center>**TR+F1**</center>

108.Teacher   *Umm... Why... why did you put foyer with the group? Do*
SF1
 you know what foyer is?

109.Student v   *Similar of ...(inaudible).*

110.Teacher   *No, no. Can ... er... somebody tell us what the meaning of*
TR+F3
 foyer is?
 SF2
111.Student   *Lobby... Lobby...*
 SF3
112.Student   *Lobby?*
 SF4
113.Student v   *Lobby?*
 TF1
114.Teacher   *It's a lobby*

115.Student v   *Ooh...*

<center>**TR2**</center>

116.Teacher   *O.K. O.K. Alright just leave foyer out. What are the other*

words?

117.Student v   *Opera*

118.Teacher   *Opera yeah*

119.Student v   *Yeah a ticket*

120.Teacher   *Ticket. So you could put those together. Alright could you see why student v could put those 4 words together? You could buy a ticket for the opera. You could buy a ticket for the ballet performance or you perform at the opera. Aaah... student w you had all group that you had.*

121.Student w   *Disc-jockey. (Inaudible)... microphone... musical*

122.Teacher   *Right... er musical? Right good and records? Did you hear all those words that student w joined together in the one group? Did you hear them?... Read... just tell us again student w.*

123.Student w   *Disc-jockey ummm... microphone*

124.Teacher   *Now why did you put disc-jockey and microphone together?*

125.Student w   *Because... the disc-jockey uses the microphone*

126.Teacher   *Yes yes... Next one*

127.Student w   *Footlights*

128.Teacher   *And why did you put footlights there?*

129.Student w   *(looks uneasy)*

130.Teacher   *It's ... it's a good one to put with disc-jockey but you tell us why*

131.Student w   *Ummm... disc-jockey ... (inaudible)*

132.Teacher *Yes footlights... everything lights up so everyone can see the disc-jockey*

135.Student w *He chose the song*

136.Teacher *And you had musical as well so... music he plays records from a musical... Do you all understand there are a couple of meanings for the word musical. Musical could be an adjective to describe a person... she's a musical person or a musical sound and do you know the other ways for word musical? There is another meaning for the word musical. A musical is rather like an opera. It's a play on a stage with music and people sing songs and they dance ... like South Pacific if it's performed on a stage in a musical ... O.K. but you can still have musical because a disc-jockey could play music and ...*

(Teacher instructs students to talk to the person next to them and exchange reasons for why they placed their words where they did. Teacher monitors. Students talk to each other)

Some Time Later

(The teacher instructs students to make sentences using at least two of the words for homework. She gives an example as follows)

137.Teacher   *Like I bought a ticket to the opera ... ummm and I had already read the librettos of the opera and the libretto is all the speaking, words from all the speaking and the music.*

(Teacher goes on to instruct students to write sentences with those two words missing for next time. Also tells them to study new words at home).

T$_M$ = 3	conjurer	lyrics	understudy
S$_M$ = 1	foyer		
T$_R$ = 12	conjurer 5 Lyrics 1	understudy 4 foyer 2	
S$_R$ = 2	conjurer 1	foyer 1	
T$_R$+F = 23	conjurer 8 lyrics 5	understudy 7 foyer 3	
S$_R$+F = 0			
T$_F$ = 18	conjurer 9 lyrics 1	understudy 7 foyer 1	
S$_F$ = 18	conjurer 10 lyrics 2	understudy 2 foyer 4	
S$_T$ = 20	conjurer 11 lyrics 2	understudy 2 foyer 5	
T$_T$ = 33	conjurer 13 lyrics 5	understudy 9 foyer 6	

Appendix 4

Interaction Patterns for each Lesson

Interaction Patterns in the Lessons

Class A	Class C
Stage 1 T-S S-T Some informal S-S Stage 2 Students work alone Some informal S-S * Ss seated in groups of four	Stage 1 T-S S-T Stage 2 T-S S-T Stage 3 T-S S-T Some informal S-S *Ss seated in one large group
Class B	**Class D**
Stage 1 T-S Stage 2 Student works alone Stage 3 S-S *Ss seated in groups of four	Stage 1 T-S S-T Stage 2 Students work alone Stage 3 Students work alone S-S *Ss seated in one large group

Appendix 5

Materials used in each lesson

For each of the following sentences, use contextual clues to guess the meaning of the italicized word. Write your definition on the line. Then check the dictionary to see how close you are to the meaning.

1. In order not to burn the table, he put a *trivet* under the hot dish.

   trivet: _____

2. The driver *swerved* her car to miss the little girl in the road.

   swerved: _____

3. The heavy bombing so *pulverized* the town that it was surprising any of the inhabitants survived.

   pulverized: _____

4. The illness left the woman so *languid* that she could not even cross the room for a glass of water.

   languid: _____

Class A, Material 1

Using Context Clues to Determine Meaning

Use context clues to determine the meanings of the italicized words. Write a definition, synonym or a description of the italicized vocabulary items in the space below.

Picture this cartoon. A man is watering his lawn just as an attractive blonde walks by. As he *ogles* her, he accidentally turns the *hose* on his *dowdy* wife, who is sitting on the *porch*.

Men usually think this cartoon is funny. Women do not. And there's a good reason for this opinion.

ogle:_____

dowdy: _____

hose:_____

porch: _____

When we are secure about our abilities, we can joke about our *foibles*. If we can laugh about our small faults, we will not be overpowered by them.

foibles: _____

The memory of a bad experience can sometimes *trigger* the same fear caused by that experience. Thus, a child might be frightened by the sight of a dog, even though he is safe, *merely* because he once had a bad experience with a dog. A bad experience can be the *cue* that triggers that fear.

trigger:_____

merely:_____

cue:_____

Some people enjoy talking about their fears, while others *resent* being asked to talk about their personal feelings.

resent:_____

Some people try to hide their nervousness; they try to *disguise* their anxiety by telling jokes. Others become loud and *aggressive*, attacking people by making them the *butt* of cruel jokes.

disguise: _____

aggressive: _____

butt: _____

Class A, Material 2

OGLE _____

_____

DOWDY _____

_____

HOSE _____

_____

PORCH _____

_____

FOIBLES _____

_____

TRIGGER _____

_____

MERELY _____

_____

CUE _____

_____

RESENT _____

_____

DISGUISE _____

_____

AGGRESSIVE _____

_____

BUTT _____

_____

_____

Class A, Material 3

The Agriculture Protection Board's role in managing the environment for all Australians

When Europeans first came to Australia they found an environment totally unlike any they had previously known. Australia had been isolated from other continents for over 60 million years and had developed a truly unique flora and fauna. Many thousands of species of Australian plants and animals were totally unknown elsewhere in the world.

Western Australia was even more isolated than the other states, by deserts from the rest of Australia and by seas from the rest of the world.

Evolution over this long period of isolation has led to a great diversity of plant and animal species. Most species have adapted themselves to highly specialised niches within the environment. As a result the balance between competing plants and animals in the natural environment is extremely delicate.

When this delicate balance is disturbed, native plants and animals usually suffer. Examples of such disturbances are the introduction of new predators, land clearing for housing and agriculture, the growing of new crop and garden plants and the introduction of new domestic animals.

In general, Australian native plants and animals have proved to be ill-adapted to competing with introduced ones. In contrast many introduced species have been able to exploit the Australian environment successfully. While most native animals suffered as a result of the changes brought about by European agriculture, some benefited and were able to increase in numbers. Galahs exploited new food sources as a result of cereal growing. The large kangaroos were able to benefit from reliable water points and at times from improved pastures. Some possums moved into semi-urban environments, utilized food wasted by man and found shelter in the ceilings of houses, while some native birds such as the silvereye found fruit crops provided an alternative food source at a time of year when natural resources were under pressure. A few native weeds such as caltrop, thornapple and prickly acacia also benefited.

The introduction of domestic cats, rabbits, foxes, sparrows and starlings was disastrous to native animals. Many weed species such as doublegee, wild radish and skeleton weed, introduced inadvertently, became a threat to agriculture. With the changed environment many native species of both plants and animals became rare or even extinct.

It is not possible to turn the clock back. Nor is it sensible to simply ban killing of all native plants and animals. For some species, to do nothing may be more disastrous than continued exploitation. For example, if kangaroo numbers were allowed to increase unchecked to the numbers possible now that assured water supplies are available, they would damage the rangeland, mainly by hindering regeneration after drought. By causing permanent damage to their own environment they would further restrict their own opportunities for survival as a species.

We clearly have to live in a world where all species of plant and animal, including man, compete for existence. Australia must be shared in a way which allows both the natural and the man-made environment to be available for the enjoyment of future generations of Australians.

The Agriculture Protection Board is concerned with many aspects of managing the environment to achieve this aim.

The prime function of the Board is to protect agriculture from introduced pest plant and animal species. However, agriculture functions within the natural environment and anything which damages the natural environment in the long run damages agriculture. In the same way, anything which damages agriculture, damages the rest of Australia.

The APB manages the environment by:

- keeping introduced pest plants and animals out of W.A.
- reducing and eliminating those pests which are present but not fully established.
- preventing the spread of weeds from one part of the state to another, uninfested area.
- managing the populations of those native animals which might pose a threat to either agriculture or rangelands.
- protecting agriculture from damage by native animals either by fencing to exclude them from agricultural areas or by destruction where this is the most practical method.
- reducing and eventually eliminating feral animal populations which threaten the rangelands.

Experience has taught us that introduced species, free from the diseases, predators and environmental constraints which keep their numbers in check in their place of origin, can increase here to the point of creating a plague. Major rabbit plagues may be confined to the history books, but other potential pests could easily repeat the sad story of this and other thoughtless introductions. Many minor pests in Europe become major problems in W.A. Some, like the sparrow and the starlings, have demonstrated the damage they can do in the eastern states. The APB protects us by protecting both agriculture and the natural environment from introduced birds, insects, plants and other animals which have the potential to become pests in W.A.

Class B, Material 1

The Agriculture Protection Board's role in managing the environment for all Australians

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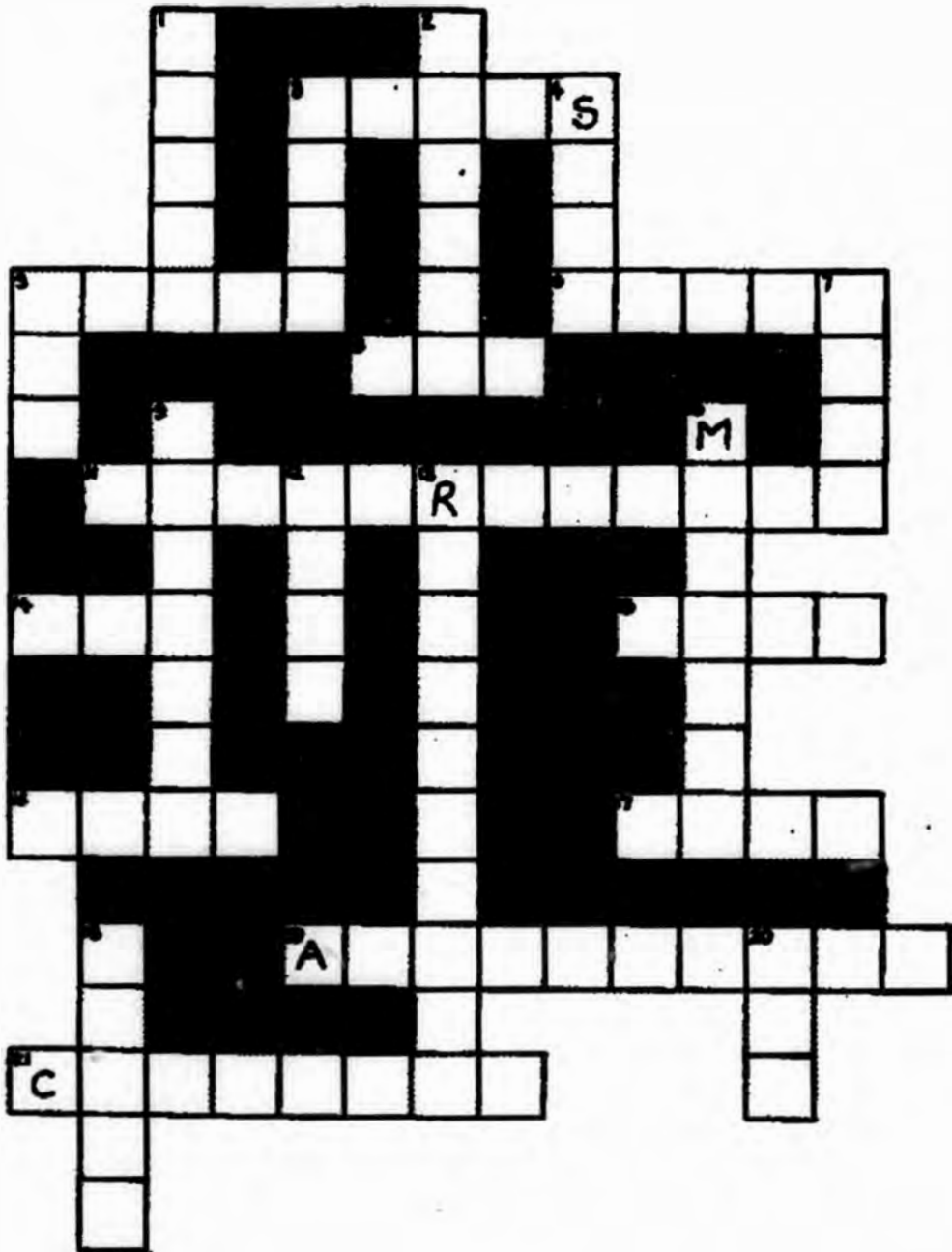
Class B, Material 1

Down

1 Australian marsupial.

2 Body or group of persons.

3 To try out an idea; an examination.

4 Basic natural resource much liked by skiers.

5 Stone of a fruit such as a lemon or orange.

7 Lifeblood of the land ... (falling from clouds).

9. Where there are trees, water, wildlife, and places to camp and picnic.

10 Nonrenewable natural resource dug from the earth.

12 Resource vital to agriculture.

13 Playing or relaxing—picnicking, camping, reading, swimming.

18 Large reptile that crushes its prey.

20 Frozen water; forms glaciers.

Across

3 What forests mostly consist of; source of timber and pulpwood.

5 Verb—to put in the ground to grow.

6 Most vital resource.

8 Large body of salt water containing many undeveloped natural resources.

11 Wise use of natural resources.

14 Sharp tool used in harvesting resources.

15 Forest animal from Europe; is causing erosion on hills in national parks.

16 Finned creature of the water.

17 Waste material left over after refining iron ore.

19 Living things other than plant life.

21 Popular form of boating on lakes and rivers, using a paddle.

Class B, Material 3

Conservation crossword

Try your hand at his Conservation Crossword. Note that a few key letters have been supplied. (Solution on p. 220.)

Class B, Material 4

Aside from the context, an analysis of an unfamiliar word itself can often help determine meaning. A word can sometimes be divided into parts (or elements). Each element has a meaning (See Table 6.1). By combining the meanings of these elements, you can arrive at a definition. For example, if you know that _fortune_ means _luck_ and that _mis-_ means _bad_, then you can figure out the meaning of _misfortune_.

misfortune = _____

Let's try analysizing the word that is thought to be the longest word in English:

pneumonoultramicroscopicsilicovolcanoconiosis

A breakdown of this word's components is as follows:

pneumon = lungs	silico = silicon
ultra = extremely	volcano = eruption
micro = small	coni = dust
scopic = to see	osis = condition

By combining some of this word's elements, you can piece together the following definition:

A _____ of the _____ caused

when _____ _____ particles of _____ _____ are inhaled.

By now, you can see that it is often quite possible to find an approximate meaning for unfamiliar words without using a dictionary. Unfortunately, this is not always the case. Sometimes, neither the context nor an analysis of the word will help much. When this happens, you need to ask yourself two questions.

1. Is this word essential to an understanding of the reading?
2. Is this a word I have often met before but still do not know what it means?

You should use your dictionary if the answer to either of these questions is "yes."

Class C, Material 1

Unit 4   Stage 2
Exercise 5   Vocabulary: Multiple Meaning

(a) The following words, taken from the Stage 2 Text, have several meanings listed in the dictionary. Select the meaning which is appropriate for the text by putting a tick in the relevant box. ☑

1 glance (line 5): *n.*

  1 quick turning of the eyes: *loving ~s.* ☐
  2 quick look: *take a ~ at the newspaper headlines* ☐
  3 (sudden movement producing a) flash of light: *a ~ of spears in the sunlight* ☐

2 then (line 8): *adv.*

  1 at the time: *I was still unmarried ~.* ☐
  2 next; after that: *We had a week in Rome and ~ went to Naples.* ☐
  3 in that case; that being so: *A: 'It isn't here.' B: 'It must be in the next room, ~.'* ☐

3 emerge (line 15): *vi.*

  1 come into view; (esp.) come out (from water, etc.): *The moon ~d from behind the clouds.* ☐
  2 (of facts, ideas) appear; become known: *No new ideas ~d during the talks.* ☐
  3 issue (from state of suffering etc.) ☐

4 practically (line 16): *adv.*

  1 in a practical (as opposed to theoretical) manner. ☐
  2 in effect; in action: *~, his ideas did not work very well.* ☐
  3 almost; nearly: *He says it is ~ finished.* ☐

5 principle (line 21): *n.[c.]*

  1 general law shown in the working of a machine. ☐
  2 basic truth; general law of cause and effect. ☐
  3 guiding rule for behaviour: *live up to one's ~s.* ☐

(b) What do the abbreviations used above mean?

  n. _____   *adv.* _____

  vi. _____   *[c.]* _____

Class C, Material 2

Unit 4 Stage 2
Exercise 2 Listening and Blank-Filling

Complete the following by writing *one or more words* in each space as you listen to the talk.

ATTITUDES TOWARDS THE LEARNING OF VOCABULARY

1 A recent university _____ project investigated the attitudes of post-
2 graduate science students _____ the learning of English vocabulary. The
3 results were surprising. _____ three of them.
4   Firstly, most of the students think that nearly every word in English _____
5 just one meaning. This is, of course, completely contrary to the facts. A glance at
6 . any English dictionary will show this. The student will frequently find seven or eight
7 meanings listed _____ 'simple' words.
8   Why, then, have _____ students made such a mistake? One reason
9 may be _____ all *science* students. Scientists try to use words in
10 _____ special subject which have one meaning, and one meaning only.
11 Another reason, of course, could be the way in which these students _____ .
12 They may have used vocabulary lists when they first _____ English.
13 On one side of the page is the word in English; on the other side, a single word in
14 the student's native language.
15   The second attitude that _____ from the findings is equally mistaken.
16 Practically all the students think that every word in English has an exact translational
17 equivalent. Again, this is far from the truth. Sometimes *one word* in English can
18 only be translated by a *phrase* in the student's native language. There are _____
19 _____ difficulties in translation which we _____ mention here.
20 Certainly the idea of a one word for one word translation process is completely
21 false. Translation machines, which tried to work on this _____ , failed
22 completely.
23   The third result of the investigation showed _____ error in the
24 students' thinking. They believe that as soon as they know the meaning of a word,
25 they're in a position to use it correctly. This is _____ for any language
26 but is perhaps particularly false for English. The student has to learn when to use
27 a word _____ to know what it means. Some words in English mean
28 almost the same but they can only _____ in certain situations.
29   What, then, is the best way to increase _____ vocabulary? This can
30 be answered in three words—observation, imitation and _____ .

Class C, Material 3

Exercise

Word analysis can help you to guess the meaning of unfamiliar words. Using context clues and what you know about word parts, write a synonym, description, or definition of the italicized words.

1. _____ The doctor asked Martin to *inhale* deeply and hold his breath for 10 seconds.

2. _____ Many countries *import* most of the oil they use.

3. _____ Three newspaper reporters *collaborated* in writing this series of articles.

4. _____ Calling my professor by her first name seems too *informal* to me.

5. _____ It is Joe's *prediction* that by the year 2000 there will be a female president of the United States.

6. _____ Historians use the *inscriptions* on the walls of ancient temples to guide them in their studies.

7. _____ You cannot sign up for a class the first day it meets in September; you must *preregister* in August.

8. _____ After his long illness, he didn't recognize his own *reflection* in the mirror.

9. _____ I *dictated* the letter to my secretary over the phone.

10. _____ I'm sending a sample of my handwriting to a *graphologist* who says he can use it to analyze my personality.

11. _____ That university has a very good *microbiology* department.

12. _____ *Phonograph recordings* of early jazz musicians are very valuable now.

13. _____ At the drug store, the *pharmacist* refused to give me my medicine because she could not read the doctor's *prescription*.

14. _____ He should see a doctor about his *chronic* cough.

15. _____ Maureen was not admitted to graduate school this year, but she *reapplied* and was admitted for next year.

16. _____ I recognize his face, but I can't *recall* his name.

Class C, Material 4

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17. _____ Ten years ago, I decided not to complete high school; in *retrospect*, I believe that was a bad decision.

18. _____ She uses *audiovisual* aids to make her speeches more interesting.

19. _____ Some people believe it is *immoral* to fight in any war.

20. _____ Babies are born healthier when their mothers have good *prenatal* care.

Exercise 3

Following is a list of words containing some of the stems and affixes introduced in this unit. Definitions of these words appear on the right. Put the letter of the appropriate definition next to each word.

1. _____ microbe

2. _____ phonology

3. _____ audience

4. _____ chronicler

5. _____ chronology

6. _____ irregular

7. _____ microphone

8. _____ invisible

a. an instrument used to make soft sounds louder

b. not able to be seen

c. a group of listeners

d. the study of speech sounds

e. not normal

f. a historian; one who records events in the order in which they occur

g. an organism too small to be seen with the naked eye

h. a listing of events arranged in order of their occurrence

Class C, Material 5

Word Study

Stems and Affixes

Using context clues is one way to discover the meaning of an unfamiliar word. Another way is word analysis, that is, looking at the meanings of parts of words. Many English words have been formed by combining parts of older English, Greek, and Latin words. If you know the meanings of some of these word parts, you can often guess the meaning of an unfamiliar English word, particularly in context.

For example, *report* is formed from *re*, which means back, and *port*, which means carry. *Scientist* is derived from *sci*, which means know, and *ist*, which means one who. *Port* and *sci* are called stems. A stem is the basic part on which groups of related words are built. *Re* and *ist* are called affixes, that is, word parts that are attached to stems. Affixes like *re*, which are attached to the beginning of stems, are called prefixes. Affixes attached to the end, like *ist*, are called suffixes. Generally, prefixes change the meaning of a word and suffixes change its part of speech. Here is an example:

Word analysis is not always enough to give you the precise definition of a word you encounter in a reading passage, but often along with context it will help you to understand the general meaning of the word so that you can continue reading without stopping to use a dictionary.

Below is a list of some commonly occurring stems and affixes. Study their meanings. Your teacher may ask you to give examples of other words you know that are derived from these stems

10   Unit 1   Word Study

Exercise 1

1. In each item, select the best definition of the italicized word.

   a. He lost his *spectacles*.

   ____ 1. glasses   ____ 3. pants
   ____ 2. gloves   ____ 4. shoes

   b. He drew *concentric* circles.

   ____ 1. OO   ____ 3. ∞
   ____ 2. ◉   ____ 4. ⊕

   c. He *inspected* their work.

   ____ 1. spoke highly of   ____ 3. examined closely
   ____ 2. did not examine   ____ 4. did not like

2. Circle the words where *in-* means *not*. Watch out; there are false negatives in this list.

   inject   inside   insane   inspect
   invaluable   inflammable   inactive   invisible

3. In current usage, the prefix *co-* is frequently used to form new words (for example, *co-* + editors becomes coeditors). Give another example of a word that uses *co* in this way.

_____

4. The prefix *re-* (meaning *again*) often combines with simple verbs to create new verbs (for example, *re-* + *do* becomes *redo*). List three words familiar to you that use *re-* in this way.

_____

Class C, Material 6

Paragraph 3

Teaching is supposed to be a professional activity requiring long and complicated training as well as official certification. The act of teaching is looked upon as a flow of knowledge from a higher source to an empty container. The student's role is one of receiving information; the teacher's role is one of sending it. There is a clear distinction assumed between one who is supposed to know (and therefore not capable of being wrong) and another, usually younger person who is supposed not to know. However, teaching need not be the province of a special group of people nor need it be looked upon as a technical skill. Teaching can be more like guiding and assisting than forcing information into a supposedly empty head. If you have a certain skill you should be able to share it with someone. You do not have to get certified to convey what you know to someone else or to help them in their attempt to teach themselves. All of us, from the very youngest children to the oldest members of our cultures should come to realize our own potential as teachers. We can share what we know, however little it might be, with someone who has need of that knowledge or skill.*

Select the statement that best expresses the main idea of the paragraph.

____ a. The author believes that it is not difficult to be a good teacher.

____ b. The author believes that every person has the potential to be a teacher.

____ c. The author believes that teaching is a professional activity requiring special training.

____ d. The author believes that teaching is the flow of knowledge from a higher source to an empty container.

Class C, Material 7

Vocabulary Words in Context.

He was a conjurer.   a singer
                 a lawyer
                 a conjurer
He was a conjurer who entertained children.
                 a singer
                 a lawyer
                 a conjurer
He was a conjurer who entertained the children by pulling rabbits out of a hat and other magical tricks.
                 a singer
                 a lawyer
                 a conjurer

....

Larry was a ventriloquist for ten years.
          a window dresser who works for a department store.
          an after dinner speaker
          a person who makes his voice appear to come from someone else.
Larry made a lot of money entertaining people.
          a window dresser who works for a department store.
          an after dinner speaker
          a person who makes his voice appear to come from someone else.
Larry sat the doll on his knee and had a conversation with it to amuse the children
          a window dresser who works for a department store.
          a public speaker
          a person who makes his voice appear to come from someone else.

....

I heard the lyrics clearly.
          birdsong
          words of a song
          music
The singer kept forgetting the lyrics.
          birdsong
          words of a song
          music
The singer needed to practice his pronunciation so we could hear the lyrics clearly.
          birdsong
          words of a song
          music

Class D, Material 1