

**THE EFFECT OF TEACHING SECOND LANGUAGE STUDENTS A
COMBINATION OF METACOGNITIVE AND COGNITIVE STRATEGIES
FOR READING AND LISTENING COMPREHENSION**

by

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ABSTRACT

Students who study through the medium of a second language often have reading/listening comprehension and general study problems. This study focuses on particular aspects of these problems only, namely, identification of main ideas, summarisation and note-taking. The aim of this study was to determine the effect of teaching L2 students a combination of metacognitive and cognitive strategies for reading and listening comprehension (the main idea, summarising and note-taking by means of dictation). An intervention programme was designed in order to teach students these skills. There were ten students in both the experimental and the control groups. Both groups were assessed before and after the intervention programme. The findings reveal that the intervention was successful, with the experimental group showing greater improvement than the control group. The findings of this study have implications for second language tertiary learning and teaching theory and practice.

Key terms:

Metacognition; Reading comprehension; Listening comprehension; Metacognitive strategies; Cognitive strategies; Tertiary students; Second language students; Summarisation; Main idea; Note-taking.

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CHAPTER 1

PROBLEM FORMULATION, AIMS AND HYPOTHESES OF STUDY

1.0 INTRODUCTION

The main objectives of this chapter are to provide background as to what prompted the study, to state the aims and hypotheses of the study and to outline the structure of the dissertation as a whole.

1.1 BACKGROUND TO THE RESEARCH PROBLEM

In general, English second language (ESL or L2) students tend not to do well academically at tertiary level when studying through the medium of the second language. Various studies have been undertaken in America and South Africa which confirm ESL students' lack of academic proficiency through the medium of English. The following aspects of studying in an L2 were examined: writing (Horowitz 1986; Jardine 1986; Raimes 1987; Dunkel, Mishra & Berliner 1989; Tedick 1990), reading comprehension for studying, including reading for the main idea (Brown & Day 1983; Baker & Brown 1984; Landman 1987; Blacquièrè 1989; Perkins 1991), summarisation (Brown & Day 1983; Garner 1985; Jardine 1986; Garner 1987; Kirkland & Saunders 1991), listening comprehension (Mendelsohn & Klein 1974; Jardine 1986; Blacquièrè 1989; Lund 1990) and note-taking (Williams 1984; Jardine 1986; Dunkel *et al.* 1989; Perkins 1991). These studies all show that L2 students have problems in various aspects of reading, writing and listening when studying through the medium of an L2.

From this writer's personal experience of studying through the medium of a second language at tertiary level and from conversations with fellow L2 students, it was clear that students are confronted with a great volume of work that requires reading, note-taking and summarisation. In addition, students have to take down notes effectively in lectures. The writer's view that L2 English students experience difficulty with reading and listening for the main idea and summarising was confirmed after some time spent teaching English L2 at a high school. After teaching five Standard 9 (Grade 11) L2 English classes a cognitive

technique or strategy, namely, the rules and steps applicable to reading for the main idea and summarising, I received positive feedback from the students. Some students claimed that they had previously found the technique difficult even in Afrikaans, their L1, and even more so in English L2, but that they found it easier after having being taught these specific skills over a period of time. Eventually, other L2 students in the school also requested that they be taught the summarising technique and how to read for the main idea. This led to the realization that in order to improve the note-taking skills of L2 students there is a need to teach specific academic/study skills such as reading for the main idea, summarisation, and listening comprehension. With English being one of South Africa's main languages and a preferred medium of instruction at school, it is clear that 'at risk' black L2 first-year tertiary students also experience difficulty with these skills and might benefit from being taught specific academic and study skills. In this study the terms *academic skills* and *study skills* will be used interchangeably. These terms will be discussed more extensively in Chapter 2.

L2 students have various problems studying through an L2 medium of instruction. Explicitly teaching them specific skills could help them develop the requisite skills. Hence my decision to do a small pilot study in which a group of students were taught specific skills to see whether this had any effects on aspects of their reading and listening comprehension. Because it was a small-scale study, I decided to focus on a small set of skills only, which were reading and listening for the main idea and controlling ideas, summarisation and listening for the supporting ideas during lectures.

To try and shed light on why ESL tertiary students experience learning problems at tertiary level, it is necessary to look more closely at various factors that contribute to this situation.

1.1.1 The changing demographic profile of ESL at tertiary institutions

During the late 1960s, ESL student enrolment in American and British tertiary institutions increased dramatically. The result of this demographic shift was that a need arose to prepare an increasing number of ESL students with the advanced academic skills needed for studying at tertiary level. According to Grabe (1991:375), reading is the most important language skill for ESL students in academic contexts. During the 1960s, reading was initially viewed as a

reinforcement for oral language instruction. Reading instruction focused on the audiolingual method with its emphasis on grammar, vocabulary and pronunciation. As student demographics shifted, it was generally felt that the audiolingual method, which stressed oral language skills, was inadequate to address ESL students' needs. With the change in ESL instructional needs, advanced reading and writing instruction was stressed in the early 1970s. Subsequently, researchers' and teachers' views on reading theory changed during the middle to late 1970s. Goodman's "psychological model of reading" theory, which emphasized that reading was not just a decoding process but a process of comprehending, gained support from researchers. (The reading issue will be dealt with in greater detail in Chapter 2.)

The 1980s witnessed a further increase in the number of foreign students enrolling at British and American tertiary institutions (Olsen & Huckin 1990; Tedick 1990; Morley 1991). A survey was conducted amongst ESL students at a number of American universities to find out which aspects of studying students found most difficult. This survey revealed that listening for note-taking, reading and writing are skills considered necessary for success at tertiary level (Jordan 1989:153).

To meet the demands of the large numbers of L2 tertiary students who employ English as their language of study, several study skill courses for ESL students have been presented at tertiary institutions in Britain, America, Ghana, Malaysia, Saudi Arabia, Nigeria from the 1970s to the present (Robinson 1980:26; Jordan 1989:152; Olaofe 1994:40). Some of the study courses offered are subject-specific and examine the features of specific academic disciplines or subjects such as social sciences. Other courses are concerned with the subject-matter of study skills themselves and focus on aspects such as the techniques and strategies of reading (e.g. main idea or summarisation), note-taking, writing and listening for study purposes (Jordan 1989:150; 152).

In the past, most students at universities and colleges in South Africa have been white. In spite of the fact that secondary school enrolments gradually increased at African schools, very few black students enrolled at *historically white* tertiary institutions in the period up to 1989. For example, during 1987, 87% of all black students obtained university degrees and diplomas from the *historically black* universities of VISTA, Zululand, University of the North and Fort Hare (NEPI 1993:30).

Since the nineties, an increasing number of black students have enrolled at *historically white* South African tertiary institutions. The success rates of these black ESL students are considerably lower than those of white students. There is also a higher drop-out rate amongst the former group. To address this problem, several remedial measures such as academic support programmes have been implemented at *historically white* universities. In some cases these support programmes are successful and in other cases they are mere "stopgap measures" to try and get "students over hurdles" (Jardine 1986:57).

In his study on Nigerian L2 students' English study skills courses and testing, Olaofe (1994:37) stresses the importance of taking students' heterogeneous linguistic, academic and socio-cultural backgrounds into consideration. With reference to ESL students and study skills, Robinson (1980:25) observes that ESL students have often not mastered adequate study skills in their own language and thus do not have skills to transfer to English. The author (1980:68) points out that study skills such as listening to lectures and note-taking, reading and writing (e.g. summarisation) cannot just be explained but have to be both practised and mastered. Olaofe (1994:38) advocates that study skills courses and tests should reflect the various activities and tasks for which L2 students employ English in their respective academic disciplines as well as language tasks they perform, such as reading, listening, writing and studying.

The students in the present study appeared to be typical 'at risk' students and lacked the type of skills referred to in previous paragraphs. For this reason, the present study focuses on the effect of teaching black L2 students strategies for reading and listening comprehension, for summarisation and note-taking strategies in order to improve their competence in these areas (cf. § 1.1).

1.1.2 Factors which contribute to the problems experienced by academically vulnerable L2 students

Despite the fact that black L2 tertiary students experience problems in learning, they are intelligent and have an underlying ability to learn via an L2. There are at least seven factors relevant to the problems L2 students experience at tertiary level: cognitive/conceptual,

linguistic, learning, literacy, socio-cultural and pedagogical factors as well as language policy.

1.1.2.1 Cognitive/conceptual factors

Adamson's (1990:67) study reveals that American L2 English students do not perform adequately in mainstream academic courses. According to Jardine (1986), South African (SA) black L2 students also do not perform effectively, despite the fact that they might already have passed the pre-entry tests and interviews common to many SA tertiary institutions. These screening methods are fallible and practice shows that even carefully selected students drop out or fail (Jardine 1986).

Blacquièrè (1989:80) attributes SA L2 students' problems with academic courses to conceptual and processing handicaps. These 'handicaps' are apparently not inherent, but environmentally induced. Appropriate cognitive skills need to be developed and nurtured from the primary school onwards. This has not been the practice in many black schools in SA, where rote learning of knowledge occurs, rather than the active construction of knowledge. Blacquièrè (1989:79) explains that because of a heritage of denial of "ready access to a sufficiently rich input of text", less privileged ethnic group students do not have the "necessary heuristic reading experiences from which to abstract the higher-order conceptual skills" necessary in their tertiary studies. In addition, they also lack the conceptual maturity to make full use of what is available to them.

The study conducted by O'Malley, Chamot, Stewner-Manzanares, Russo & Kupper (1985:558) shows that L2 English students find academic tasks cognitively demanding. In a similar vein, Kirkland & Saunders (1991:105) state that academic reading-writing activities such as summarising can impose "an overwhelming cognitive load" on L2 students and as a result have an adverse effect on performance.

Adamson (1990:68) claims that often L2 students' general English is adequate but their proficiency in academic English is not. To support this notion, Adamson (1990:67) cites the research studies of Coleman (1966 in Adamson 1990) and Collier (1987 in Adamson 1990)

which found that when ESL students in America were compared to English first language (i.e. native or L1) students, ESL students fell significantly behind L1 English speakers with regard to reading, social studies and career development. Interestingly, their general language proficiency in the L2 language was adequate in social situations. The reason attributed to the L2 students' lack of success was that they were not proficient in academic English. Research undertaken by de Kadt (1992:149) indicates that first-year Black English students in SA are generally competent in English yet tend to experience problems with academic tasks such as comprehension and note-taking. Adamson's (1990) view is confirmed by Saville-Troike's (1984) study of L2 students' language learning for academic achievement. The author (1984:216) stresses that L2 teachers have to "recognise that there is a qualitative difference between communicative tactics and skills that students find effective for meeting their social needs and goals and those that are necessary for academic achievement in the classroom". From the aforementioned discussion, it would thus seem as if many L2 students have Basic Interpersonal Communicative Skills (BICS) but not well-developed Cognitive/Academic Language Proficiency (CALP).

BICS is the extent of students' communicative competence, which enables them to function in daily interpersonal exchanges (Brown 1987:199). It includes aspects of language such as pronunciation, basic vocabulary and grammar. Unfortunately, the ability to converse fluently in undemanding everyday situations is not sufficient for academic success (Lemmer & Squelch 1993:43).

CALP is the L2 proficiency required to understand academic concepts and to perform higher cognitive operations in order to achieve academically whether at school or tertiary level. Many academic tasks such as exercises and tests, are cognitively demanding and often have to be solved independently by L2 learners without support from the context (Cummins 1980 in Richards, Platt & Platt 1992:59). Because black SA L2 students have become dependent on rote learning techniques at school, they become dependent learners at tertiary level. They tend to experience difficulty when requested to perform higher cognitive operations such as interpreting, comparing or evaluating academic tasks (Jardine 1986; Blacquièrè 1989). Furthermore, black ESL students in SA often find academic concepts and terminology difficult because these terms and ideas are abstract, and less easily understood and

experienced than ideas and terms employed in social situations (Lemmer & Squelch 1993:43).

The difference between BICS and CALP can be summed up as follows: BICS is relatively cognitively undemanding and relies on *context* to clarify meaning whereas in a CALP situation, L2 students have to use and understand language in a *decontextualised* way (Cummins 1980 in Richards *et al.* 1992:59). Black SA L2 students' problems have been attributed to their disadvantaged educational experience and the fact that their teachers did not prepare them adequately by taking them through from context-embedded cognitively undemanding tasks to context-reduced cognitively demanding tasks (Macdonald 1990:81). It is apparent from the preceding discussion that there is no correlation between L2 students' general English proficiency evinced in their ability to interact effectively in social situations, and academic success (Adamson 1990:68). It is therefore necessary for tertiary institutions to take this into account when catering for the needs of L2 students.

1.1.2.2 Linguistic factors

According to Blacquièrè (1989:81), many black SA L2 tertiary students experience linguistic problems. Linguistic competence is defined as mastery of the verbal and non-verbal language code. It includes the "features and rules of the language viz: vocabulary, word formation, sentence formation, pronunciation, spelling and linguistic semantics" (Canale 1983:7). Celce-Murcia (1991:459) asserts that linguistic competence/accuracy refers to the "forms, inflections and sequences" employed by the learner to express a message which is grammatically correct. Linguistic competence is necessary at L2 tertiary institutions as students have to comprehend what they are reading, take down notes, make summaries and listen and comprehend what the lecturer is saying in the second language.

It is relevant to ask why many L2 students with learning problems have underlying language problems. According to Lemmer & Squelch (1993:42), there are two possible reasons: In addition to English, black SA L2 students often speak a second, a third, fourth or even fifth language in their communities. The English spoken by these students is seldom standard English but can be categorised as foreign, black or heavily accented English. The students

may reveal language/learning problems because of the influence of their other languages on English which might cause interlinguistic transfer errors. Interlinguistic transfer can occur in any L2 learning situation, and is therefore not a problem specific to black SA students only. Interlinguistic transfer can affect learners' levels of proficiency in the L2. Transfer from the learning context can also contribute to learners' errors in the L2.

Second-language researchers have shown that L2 tertiary students lack linguistic proficiency (Jardine 1986; Raimes 1987; Blacquièrè 1989). The findings of Jardine's South African study show that black L2 tertiary students experience reading problems at lexical, syntactical and discourse level (ibid 1986:59). These linguistic problems become intensified when students have to comprehend a reading text which is both difficult and on subject matter which is new to them. Similarly, Blacquièrè's (1989) South African study reveals that black L2 students with linguistic handicaps have problems with decoding print and interpreting the meaning of reading content. This implies that black L2 tertiary students are at a disadvantage whenever they have to study in an L2 in which they do not have a very high level of proficiency.

L2 tertiary students frequently have inadequate listening comprehension ability. This is because what they think they hear in lectures is not always what the lecturer intended to convey. Furthermore, the notes which L2 students take down are often more inaccurate than those of their L1 English peers (Blacquièrè 1989:80). This problem is not confined to black SA L2 students. This finding is confirmed by Dunkel *et al.* (1989) who studied L2 students at an American university. With regard to note-taking and listening comprehension, Dunkel *et al.* (1989:547) state that L2 learners in an L1 English-speaking lecture environment are at a "distinct linguistic disadvantage" when compared to L1 speakers. The findings of their study indicate that L1 students can recall significantly more of the information presented in a lecture than L2 students do. The authors (1989:548) advocate that L2 students should receive extra "English language training in the area of academic listening comprehension".

The results of Tedick's (1990:135) study on L2 writing at tertiary level reveal that both linguistic competence and familiarity with the subject matter are necessary to produce quality writing. Familiarity with the subject matter of the writing stimulus does not compensate for L2 students' lack of linguistic competence.

Morley (1991:144) points out that although some L2 students might be able to "survive" linguistically, they are 'at risk' as far as their opportunities for real success are concerned. This is because English language expertise is necessary for participation in the academic and professional community but L2 speakers may not be fully equipped to meet future linguistic challenges of their chosen profession. For instance, they may be unable to speak and write proficiently in their field in the medium of English.

It can reasonably be assumed that there is a link between language and learning problems. For instance, language is a means of communication, it is an access code to knowledge and information, it also enables one to express ideas, to compare, describe, disagree, assess, evaluate and come to conclusions. This can be done in the written or spoken mode, with BICS or CALP, but in order to be effective in the learning context, one needs to be proficient in the more formal, decontextualised uses of language associated with the written mode, i.e. one needs to be academically literate and have a well developed CALP. This implies that there is correlation between the language skills required at tertiary level and academic proficiency. There is a need to consider the effect it will have on learning if the L2 student's proficiency in using the code is limited.

1.1.2.3 Learning factors

Possible causes for L2 students' learning problems fall into the following categories: language problems, differences in the ways they approach learning (i.e. cognitive style of learning); inappropriate academic and study skills as well as ineffective general learning strategies.

Because English is a *lingua franca* in communities, at the workplace and at tertiary institutions, a large number of non-English students are enrolling at English-medium schools and tertiary institutions. Although these students are sufficiently fluent enough to pass the entrance exams, they frequently do not have the English language ability required for academic success. This implies that these students have BICS rather than CALP. As a result, these students need to acquire a standard of English on a par with L1 English speakers and simultaneously need to use English as a medium of learning for all their academic subjects.

As stated previously (cf. § 1.1.2.2), language problems of one form or another are the underlying basis for many learning problems. This is substantiated by Jardine's (1986:58) investigation conducted at the University of Natal, which revealed that 70% of 530 L1 and L2 students assessed were not successful in reaching a satisfactory level in basic grammar, spelling and writing skills. This investigation indicates that South African L1 and L2 English students lack 'linguaging' skills and tend to drop out as a consequence.

The findings of a study undertaken by Blacquière (1989:73) in South Africa show that black L2 students at tertiary domains do not read as efficiently as their white peers. This view is confirmed by Landman's (1987:18) South African study on reading and writing, which indicates that some disadvantaged L2 students have the necessary reading decoding skills but experience difficulties with certain aspects of reading comprehension, e.g. identifying the main idea. Various studies reveal that L2 students generally are weak with regard to the academic language skills of reading and listening comprehension, note-taking and summarising (Brown & Day 1983; Williams 1984; Jardine 1986; Blacquière 1989; Adamson 1990; Perkins 1991).

As mentioned earlier, L2 students' inappropriate academic and study skills, as well as ineffective general learning strategies, have been blamed for their lack of academic success. To find out in which areas American L2 students experienced difficulty, Adamson (1990:70) used an informal, subjective observation method. The researcher (1990) spoke to students' lecturers. In addition, he examined the students' notebooks, workbooks, tests, papers and other documents. By means of observation he was able to ascertain which study strategies and coping strategies L2 students employed. The researcher (1990) concluded that students' lack of academic success could be attributed to their ineffective academic language skills (i.e. note-taking, reading and listening). Furthermore, when they were given assignments which they did not fully understand and for which they did not have the required academic skills or background knowledge, they adopted coping strategies such as copying and memorization. Interestingly, many black SA L2 students also learn academic material by repeating it until it is memorized, without paying attention to its meaning (Jardine 1986:60; Blacquière 1989:79). Adamson (1990) points out that L2 students would benefit from instruction in efficient note-taking and summarisation. Adamson (1990:85) advocates that appropriate

academic/study skills should be taught explicitly in connection with authentic academic material.

Both American and South African research reveals that students who have a limited English proficiency, namely, an inability to adequately understand, read, speak and write English, are 'at risk' of underachievement, academic failure and dropping out of school or tertiary institutions (Jardine 1986; Adamson 1990; Lemmer & Squelch 1993; NEPI 1993). To try and eradicate this situation, problems experienced by students should be addressed at both school and tertiary levels. More specifically, emphasis should be placed on assisting students who "do not have the requisite language skills necessary to cope with heavy reading/writing" required of them at tertiary level (Jardine 1986:58), by identifying the exact nature of their problems as soon as possible. For instance, by examining how effectively ESL students take notes, read textbooks and study for exams.

Learning problems have also been attributed to differences in learning style, namely, the way in which learners approach the learning task. The term *learning style*, also known as *cognitive problem-solving style*, relates to students' "general behaviour and attitude towards a learning task" (Lerner 1985:186). (The terms *learning style/cognitive problem-solving style* will be employed interchangeably in this study.) L2 students differ in how they learn and the methods and strategies they employ to learn (Lemmer & Squelch 1993:58; McWhorter 1995:82). Research reveals that cultural socialization practices influence the development of learning styles (Cohen 1969; Witkin *et al.* 1977 in Hartnett 1985:21).

One way of analysing learning styles is to consider whether L2 learners display reflective or impulsive cognitive problem-solving styles. The student who has a *reflective style*, proceeds with careful deliberation, considering alternatives before selecting a response to a problem (Lerner 1985:186). In contrast, the student with an *impulsive style* arrives at decisions too soon because he is unaware that in order to solve a problem effectively, there are dimensions to be taken into account other than those he has already taken into consideration. Because he approaches the learning task in an impulsive, unplanned, unsystematic and disorganised way he cannot recognise the cues which are relevant for a proper solution (Feuerstein, Rand, Hoffman & Miller 1980:77-79). Research has revealed that preference for either one of

these learning styles can have a corresponding positive or negative effect on the effectiveness of the student's performance in a several academic domains, including reading (Kagan, Moss & Sigel 1963 in Baker & Brown 1984:358; Silberstein 1987). It would appear as if an impulsive style of learning is detrimental to academic performance as impulsive learners lack awareness that in order to solve a problem properly they have to take several factors into consideration. Instead of being broad and adventurous thinkers who take various dimensions into account, they resort to narrow thinking. It has been suggested that L2 impulsive learners and readers should be assisted to acquire an array of useful cognitive strategies in order to help them cope with learning or reading tasks (Lerner 1985:187).

Another way in which to examine learning styles is to determine whether students' learning behaviour is active or passive. Efficient learning requires an active and dynamic involvement in the learning process. In contrast, students with learning problems often approach the learning task in a passive way and are dependent learners (Lerner 1985:187). At this stage it is necessary to ask how black L2 students in general approach a learning task and why they do so. As a consequence of conditioning by culture and the education system, South African black L2 pre-tertiary students are generally exposed to a passive and highly dependent learning style. For these students, studying entails rote learning of content that is imperfectly understood and culminates in verbatim recall. They are not required to interpret, apply, compare or evaluate any 'learned' information. In contrast to the "spoon-fed" explanations received from their teachers at school, the quality of the cognitive/academic input increases at tertiary level, and these students have to function on their own. L2 tertiary students are also confronted with larger quantities of difficult texts at tertiary level than is the case at school (Jardine 1986:60; Blacquièrè 1989:79).

Besides the learning preferences or styles discussed, there are also two general categories of learning style, viz: field-dependent learners and field-independent learners. *Field-dependent* learners display a global, relational and holistic approach to learning (Hartnett 1985; Lemmer & Squelch 1993). Lemmer & Squelch (1993:61) cite Mwamwenda (1989) who found that African students are often field-dependent learners and respond well to a learning environment which is co-operative, person-orientated and supports global learning. This is because African students traditionally learn by means of observation and imitation of adult

role models with minimal verbal instruction. This implies that visual learning, demonstration and modelling by the teacher/lecturer and peers are effective teaching strategies for African students (Lemmer & Squelch 1993).

Field-independent learners reveal an analytical, verbal and sequential style (Hartnett 1985; Lemmer & Squelch 1993). The Western model of the school and tertiary institutions tends to suit analytic and field-independent learners. Teaching emphasizes task orientation, individualism, competitiveness, factual learning and is less person-orientated. As a result of differences between African and Western cultural practices and preferences with regard to learning style, a "mismatch" can occur. This "mismatch" can negatively affect the academic performance of black L2 students. It is thus necessary for lecturers to try and accommodate the various learning styles in order to afford equal opportunities and academic success to all students (Lemmer & Squelch 1993:60-62).

Researchers have pointed out that both field-dependent and field-independent learning styles are equally useful in learning and teaching situations (Zeliniker & Jeffrey 1976; Witkin *et al.* 1977 in Hartnett 1985:21). It should be stressed that neither learning style is related to intelligence but to a form of cognitive activity. Interestingly, students often employ both styles but reveal a preference for one style above the other (Lemmer & Squelch 1993:60).

According to Lemmer & Squelch (1993:62), there is a relationship between lecturers' teaching styles and the learning styles of students. The lecturer's own unique learning style might not be suited to all the students' needs. It is thus important for teachers/lecturers to have flexible teaching styles to accommodate the diverse learning styles of their students. However, the onus for being flexible is bidirectional - students should also develop both styles of learning. If tasks require an analytic approach, field-dependent learners must develop skills in adopting such an approach. Likewise, if a task requires a more global approach, field-independent learners must develop the appropriate skills. Wilkin *et al.* (1977 in Hartnett 1985:21) maintain that when students' and lecturers' learning styles are matched, students attain better grades and a classroom atmosphere prevails which is conducive to learning. Because students are heterogeneous Wilkin *et al.* (1977 in Hartnett 1985:21) are in favour of a "multiple-method approach" which complements the cognitive style of each

learner. These authors (1977 in Hartnett 1985:21) also found that some students are able to "shift" cognitive styles and thus broaden their ability to encode and store learning data in either mode.

Lecturers, teachers and researchers have noticed that certain L2 students approach the language learning task in more successful ways than others (Rubin 1987:15). Recent research and theory suggest that successful learners, in contrast to unsuccessful learners, employ a number of learning strategies to gain command over second language skills (O'Malley *et al.* 1985:557; Oxford 1992:178). The term *learning strategies* refers to "a range of activities" taken by the L2 learner to "directly or indirectly improve his or her learning" (Oxford-Carpenter 1987:52). L2 research findings support the "effectiveness" of employing learning strategies (Rubin 1987; Oxford 1992). More specifically, such findings show that the "use of appropriate language learning strategies leads to improved proficiency or achievement overall or in specific areas" (Oxford 1992:178). Garner (1987:50) states that learning strategies are generally deliberate, planful activities undertaken by active learners, often to remedy perceived cognitive failure.

Two types of learning strategies, namely metacognitive and cognitive strategies, appear to contribute directly to language learning (Rubin 1987:25). Although these two strategies are difficult to separate, attempts have been made to do so. *Cognitive strategies* refer to the "steps or operation employed by the learner in learning or problem-solving that require direct synthesis of learning materials" (Rubin 1987:23). *Metacognitive strategies* refer to executive control or regulation of cognition by the learner by means of planning, arranging, monitoring, focusing and evaluating (Rubin 1987:23; Oxford & Nyikos 1989:291). These issues will be taken up in the course of discussion later in this chapter and in Chapter 3.

As stated previously, the poor performance of L2 tertiary students correlates with inappropriate learning strategies (Oxford & Nyikos 1989:291). There are conflicting views with regard to the strategies employed by less effective learners:

- Research suggests that less effective L2 learners often find it difficult to describe their strategies as they do not know which strategies they employ (Nyikos 1987 in Oxford 1992:179);

- More recent research indicates that some ineffective L2 learners are aware of their strategies, employ just as many as more effective learners and can describe them. However, less skilled learners do not demonstrate careful orchestration and creativity when compared to more effective learners (Oxford 1992:179; Oxford 1992/3:19).
- Less skilled L2 learners employ fewer strategies when compared to more successful learners. Their strategies are also restricted to type. The strategies of less effective learners involve non-communicative or mundane behaviours such as rote memorization and uncreative forms of repetition (Oxford 1992). Black SA L2 students also tend to use rote memorization strategies.

Oxford (1992:179) cautions that the above three findings are only applicable to some less effective learners. This is because unsuccessful L2 learners are "not all just alike in their uses of learning strategies". Some learners may just be unaware or out of touch, and others might employ several strategies that lack coherence. The bottom line, however, is that less skilled L2 students do appear to have problems with using learning strategies when compared to successful learners. With respect to metacognitive learning strategies, O'Malley *et al.* (1983 in Rubin 1987:23) point out that students without metacognitive strategies are basically learners "without direction and ability to review their progress, accomplishments and future learning directions". As the metacognitive issue is central to this dissertation, it will be discussed in greater detail in Chapter 3.

1.1.2.4 Literacy factors

L2 students' academic problems have been partially attributed to literacy factors. In order to understand why black SA L2 students' problems have been partially attributed to literacy factors, it is firstly necessary to define literacy. Richards *et al.* (1992:216) define literacy as the "ability to read and write in a language" and the opposite is illiteracy. According to Crandall (1992:87) literacy has been defined in the past in terms of "direct measures such as the ability to read and write a simple sentence or indirect measures such as completion of four to six years of education". Nowadays definitions of literacy are tied up with the purposes that literacy serves in the every day lives of people. This is confirmed by Crandall (1992:87) who points out that literacy is no longer viewed "as set of autonomous,

transferable basic reading and writing skills". This view has given way to a more functional, contextualised, and culturally relative view of literacy as social practice. At the *World Conference on Education for All* in Thailand during 1990, *adult literacy* was defined as both "a life skill and the primary learning tool for personal and community development and self-sufficiency" (Bhola 1989:489 in Crandall 1992:88). Literacy might thus include the ability of a Standard 3 learner to read a reader and to answer written questions, or of a Standard 10 student to read a physics books and to answer questions in written form. It might also include the ability to fill in a Post Office postal order form or to read the *Sowetan* newspaper. However, the kind of literacy required for success at secondary or tertiary level is academic literacy, i.e. the attainment of CALP. The black education system in the past did not nurture the acquisition of this type of literacy (cf. § 1.1.2.1 to 1.1.2.3) and thus many L2 students might lack academic literacy in the learning context.

There is a correlation between general national levels of literacy and successful schooling. Worldwide research indicates that when national literacy levels are low there tends to be a high drop out rate in school, starting in upper primary school. Evidence seems to suggest that in SA inequalities in education level and disparities in economic standing contribute to the difference between the success of *historically white* and *historically black* students at tertiary level (Jardine 1986:57). A brief comparison of the school attainment and achievement of white and black students in the past follows.

To date, white South African educational attainment has been the highest in the world at an average of thirteen years compared to an average of five years of schooling amongst adult Africans and seven years in the rest of the world. At the beginning of the 1990s, African children spent an average of eleven years enrolled at school. In practical terms, their school attainment and achievement level has been lower (i.e. nine years or Standard 7) because of high rates of absenteeism and repetition of grades or standards. In contrast, white schooling achieves high rates of retention through to the final year of formal schooling (i.e. Standard 10). The majority of white children go on to tertiary education or formal vocational education whereas this is not the case with blacks. Statistics show that in 1989, 6% of the total number of graduates at technikon were black students and 82% were whites. During 1989, 21% of the total number of graduates who received university degrees and diplomas were black students compared to 64% white students (NEPI 1993:16:17). The present ANC dominated

government is involved in redressing the historical inequalities of the education system and emphasizes parity and equity in education. This is evident from the fact that everyone is to be given the opportunity to become literate, including adults. The South African Schools Act 1996, Act No 84 of 1996 enforces nine years of compulsory basic education. Three years of voluntary further education will enable students to be better qualified to enter the labour market or to study at tertiary institutions. Although English has been an official language of SA, at present citizens are encouraged to maintain their home languages at school, the work place and at tertiary level. This might have a detrimental effect on the English language development of L2 speakers.

The academic failure of black South African L2 students at school and tertiary levels has also been attributed to the fact that many of them come from semi-literate to illiterate homes. This is substantiated by the NEPI Report (1993:30) which indicates that six million adult South Africans are illiterate. Approximately two million youth have inadequate basic schooling. More specifically, due to past educational neglect, less than half of the African population aged 20 years and older can be considered literate. Illiterate and semi-literate parents are unable to provide adequate support for their children's literate pursuits in the home environment (e.g. reading to children, supervising homework) and they are less inclined to become involved at the school. There is thus less opportunity for nurturing a culture of learning in the home environment that can complement that of the school. Macdonald (1990:93) claims that the academic failure of students who do not come from literate backgrounds might be due to a lack of support from their parents and cultural environment. On a more positive note, Lemmer & Squelch (1993:48) maintain that "even marginally literate parents can be successfully trained to support their children's language acquisition". For example, non-English parents can discuss a variety of topics and events with their children in their mother tongue. Development in the L1 will support and strengthen acquisition of an L2 (Cummins 1984 in Lemmer & Squelch 1993:48). As stated, until recently the structure and organization of the education system and various political, social and economic factors promoted the interests of only one group - namely, white South Africans. This resulted in a privileged white education system which failed to meet the needs of black students (Cluver 1992:106; Squelch 1993:175). The inadequacy of black schooling is visible in poorly qualified teachers, inadequate physical resources, overcrowded

classrooms, poor examination results and a high primary school drop out rate amongst black students (Atmore 1993:14; NEPI 1993:16; Squelch 1993:176). All these factors have implications for literacy.

1.1.2.5 Socio-cultural factors

The concept *culture* is often used in a general and loose manner and can be easily misunderstood. This is because it is often associated with material (i.e. artifacts, art, music) and non-material (i.e. language) as well as visual (i.e. food and dress) aspects (Squelch 1993:11; Lemmer & Le Roux 1994:9). In addition, the concept is employed in the place of the term *society*. For example, if people speak of "African culture" they mean "African society *and* its culture". Various views exist as to what comprises culture. Instead of confining the concept to one definition, it ought to be viewed as a "composite of significant and interrelated factors" which are important in the teaching and learning process (Lemmer & Squelch 1993:11).

The term *culture* includes the total set of ideas, values, morals, beliefs, attitudes, customs, behaviour, social habits, knowledge, traditions, art, law and other capabilities that characterize a particular society (Richards *et al.* 1992:94; Lemmer & Squelch 1993:11; Le Roux 1994:9). Cultures have unique verbal and non-verbal patterns of communication and influence the way people think, feel and behave. A culture is both implicit and explicit. *Implicit culture* refers to attitudes, values and beliefs and are "discreet and hidden". *Explicit culture* is visible and recognisable in aspects such as language, food and dress (Lemmer & Squelch 1993:11; Le Roux 1994:9).

South Africa is a culturally diverse country as reflected by the wide diversity of languages used (cf. § 1.1.2.7). Although there are many micro or subcultures, the country has a macro culture or dominant culture which is shared by all its inhabitants. In the past, the macro-culture of SA was that of the dominant white group. As a result of separatism, many groups were excluded from participating in social structures (Lemmer & Squelch 1993:11). This meant that black communities were excluded from the dominant political, economic, social and educational structures (Squelch 1993). This practice also led to an "inequitable division

in the necessities of life" and disparities in economic standing which distinguish "traditional" from "non-traditional" tertiary students (Jardine 1986:57; Perkins 1991:231; Le Roux & Gildenhuys 1994:32).

As mentioned previously, language is an aspect of culture. Soon after the National Party took office in 1948, it recognized that black education and the influence of English, particularly in the Cape and Natal, were politically undesirable. This resulted in steps being taken to foster the use of Afrikaans and indigenous mother tongue instruction. The *Bantu Education Act of 1953* and the *Esselen Report* in 1955 were measures taken to try and ensure the status of Afrikaans by making it, and English, joint media of instruction in secondary schools, after eight years of mother-tongue instruction in the primary school phase (Macdonald 1990:88). Some alterations were made to the language policy of instruction in SA schools, which led to dissatisfaction in the black communities and resulted in increasing militancy amongst pupils. 16 June 1976 marked the start of student unrest on the medium of instruction issue that plunged the whole of SA into violence. The language policy later became more flexible and education authorities agreed that a single medium of instruction, chosen by the community, would be employed (Reagan & Ntshoe 1987:248-9; Macdonald 1990:89). The result was that within a period of two years the majority of black pupils were being taught in English (Macdonald 1990:89).

In addition to the language issues just discussed, the fact that the Afrikaans-speaking political group implemented a policy favouring Afrikaans and English, resulted in little being done to develop black languages beyond the final school year (NEPI 1993:16; Squelch 1993:175). As a consequence, this discriminatory policy did not enable each citizen to develop his or her full potential through the mother-tongue.

At present, English is the preferred language for education of most middle class black people. This is for several reasons. The fact that many South Africans attend school, work and communicate in L2 has led to a lack of motivation to study the indigenous mother-tongue (Guguske 1978 in Cluver 1992:114). Macdonald (1990:89) points out that middle class SA blacks support the "supremacy of English as both the *lingua franca* and the language of the future". Interestingly, only 10% of the white, coloured and Asian population have

knowledge of a black language. This means that most "South Africans do not know each other's languages" (Prinsloo 1986 in Cluver 1992:113).

As discussed, education in SA was shaped and influenced by white Afrikaner politics and their culture. Traditionally, South African teachers and lecturers were responsible for transmitting the values, norms and heritage of the two dominant groups, namely white Afrikaans and English speaking people. This established cultural homogeneity and preserved the dominant culture/s at the expense of microcultures (Lemmer & Squelch 1993:12). This practice had negative implications for the teaching and learning process in the past as it contributed towards the problems experienced by 'at risk' tertiary students. Fortunately, this practice is no longer accepted in the new SA since it is inadequate for meeting the demands and needs of students from diverse cultural backgrounds.

1.1.2.6 Pedagogical factors

Pedagogical issues contributed to the culture of learning prevalent at schools. These include five specific factors: inappropriate teaching methods; inadequate syllabi and instructional materials; inadequately qualified teachers; and practices regarding examinations, papers and certificates.

1.1.2.6.1 Inappropriate teaching methods

Inappropriate teaching methods at school are thought to contribute to poor academic performance. Jardine (1986:58) maintains that problems L2 students have at university "had their beginnings at school level". Blacquièrè (1989:79) states that black L2 students at the pre-tertiary level were exposed to a highly dependent learning style, which meant they had a "passive role in the classroom, interspersed with bouts of rote learning and culminating in spasms of verbatim recall". It has been argued that the reason why the rote method is used so extensively in the African classroom is because it matches the more authoritarian, non-individualistic approach of African culture. A problem with using mainly rote and lecture methods of instruction is that they do not promote independent learning (Squelch 1993:194). The author (1993:194) asserts that there is a need for teachers in black schools to move away

from these two methods of teaching and learning towards a creative form of learning that will foster active student participation (Squelch 1993:194). Furthermore, some teaching methods in the past were, to an extent, culturally influenced, and the content appeared to favour the Western culture more than the African culture. This is because teaching methods in the past did not take into account students' (e.g. African students) background knowledge and individual differences. In this way, schools "actively inhibited and dampened students' potential to have authority over their knowledge" (Muller 1983 in Jardine 1986:58).

As stated previously (cf. § 1.1.2.1), ESL primary school teaching methods are often not geared to take the learner through from cognitively undemanding classroom tasks to cognitively demanding tasks required for school learning tasks (Macdonald 1990:81). In addition, the secondary school subject teacher often assumes that students have mastered the basics of the content subject and moves on to cognitively demanding tasks. To try and combat this problem, it has been suggested that teaching methods should incorporate metacognitive, cognitive and social-affective strategies to meet the needs of primary and secondary students.

Often school students read their textbooks but do not comprehend or understand the text and as a result fail their courses. On the one hand, this problem has been attributed to the fact that schools do not typically teach students "what to do when they cannot comprehend a text" (Collins, Brown & Larkin 1980:404). In a similar vein, Macdonald (1990:65) states that comprehension monitoring is seldom taught at SA schools. As a result, tertiary students also experience difficulty in reading for comprehension and studying. Conversely, this problem has been attributed to the learner. Students frequently do not realize, or are not willing to admit, even to themselves, that they have not understood. According to Baker & Brown (1984:356), "such behaviour reflects poor comprehension monitoring" on the learner's side. Comprehension failure involves taking several strategic steps such as slowing down and spending more time processing the reading text, re-reading the text or concentrating on main ideas. According to O'Malley *et al.* (1985), metacognitive strategies and cognitive strategies are two types of learning strategies which enable L2 students to master L2 language skills.

As a result of inappropriate teaching methods, school teachers do not assist students to develop their full potential. There is a need for teachers to move away from textbook-based

rote learning and teaching methods towards a more creative way of learning which will encourage active student participation (Squelch 1993:194). Besides teaching tertiary students by means of lectures and small-group discussion, emphasis should also be placed on regularly teaching learning strategies, utilising direct explanation and co-operative teaching methods (which appear to be effective when working with diverse groups of L2 students). It has also been suggested that teachers should teach students cognitive and metacognitive strategies for specific language tasks (O'Malley *et al.* 1985).

1.1.2.6.2 Inadequate syllabi and instructional materials

The traditional curricula are regarded as being ethnocentric and filled with inaccuracies and omissions concerning the contributions of other cultural groups in society (Squelch 1993:193). The old curricula did not reflect a multicultural approach to education (Lemmer & Squelch 1993:79). In order for a national curriculum to be appropriate, flexible, balanced and unbiased, it should incorporate the contributions of all cultural groups (Squelch 1993:193). At present, the South African national curriculum is being revised to accurately reflect the experiences, contributions, histories and contextual realities and needs of the various groups (Lemmer & Squelch 1993:79). Mackay (1978), asserts that the needs of L2 students have to be identified and taken into account in order to design and teach effective academic courses. With this in mind, it seems that cultural relevance and the need for prior knowledge of the subject matter must be taken into account when devising instructional materials.

As stated previously (cf. § 1.1.2.2), the spoken English of L2 South African blacks is seldom standard English (Lemmer & Squelch 1993:42). Research findings suggest that differences between the grammar of Vernacular Black English (VBE) and the Standard English grammar of instructional materials (e.g. a Sociopedagogics textbook) cause poor reading achievement among VBE speakers. Hall & Guthrie (1980:448) reviewed research based on the assumption that comprehension may be a more difficult undertaking for VBE speakers owing to grammatical differences. The authors (1980:448) concluded that research findings on this issue are not clear-cut but inconclusive and conflicting. These authors (1980:448-449) suggest that educators should be sensitive to the cultural differences that influence teaching and

learning, and that teachers should try to modify the ways in which they interact with dialect-speaking students to better accommodate them. At the same time, if dialect-speaking students wish to succeed academically, they are going to need to also develop an academic dialect, viz. CALP.

1.1.2.6.3 Inadequately qualified teachers

Perkins (1991:231) points out that during 1984 only 18,2% of the junior secondary teachers at black schools had the necessary formal educational requirements for secondary-school teaching. Gamaroff (1987:15) performed a study based on Tswana speakers learning an L2 which revealed that problems encountered by students might be attributable to the fact that "teacher trainees begin training without sufficient command" of the target language, for instance, English. Moreover, these Tswana-speaking teachers of English often inherit erroneous patterns at secondary school or during their tertiary education. This implies that the teacher, who is supposed to impart knowledge to the learner, may also be a source of error and contribute to the L2 students' learning problems. In a similar vein, Macdonald (1990:102) observed that English lessons at DET schools in the old homelands of Bophuthaswana, Venda and Lebowa, were riddled with teacher errors. There are several reasons for this problem. Some black teachers are not keen to use English in front of other teachers and as such do not practice using the language. They also find it difficult to understand L1 English speakers. These teachers generally read very little English and only write the language for study purposes. The author (1990:103) recommends that L2 teachers' personal English language proficiency would benefit from a more open language policy and from opportunities to use more English. This in turn, would discourage indefinite teaching in the African mother tongue and enable teachers to attain a higher level of English proficiency.

1.1.2.6.4 Practices regarding examinations, papers and certificates

A negative culture of learning prevails at many black secondary schools. In addition to inequalities of basic education, the poor quality of schooling experienced by students prior to entering university, and inadequate physical resources, there are negative practices in

many schools and communities which exacerbate learning problems and foster negative attitudes towards learning. One such practice is that of allowing predetermined quotas of students to pass examinations even if the syllabi set for them had not been covered or mastered. This negative practice is continued at tertiary level, as can be seen from the fact that some students appear to pressurise lecturers to let them pass a subject even though they have not passed the examination (Makaula 1988:277; Perkins 1991:231).

Another practice is that of leaking exam papers before exam dates. Makaula (1988:277) asserts that "the availability of matric final year examination papers and the purchase of matric certificates from the black market" have given students a negative attitude towards learning. From media reports, this practice appears to have been especially rife during the Senior Certificate examinations. Years of such practices have strengthened students' beliefs that there is no point in working hard to pass examinations. To try to combat this problem, inquiries were held in 1996 to ascertain the nature of examination irregularities and the Gauteng Department of Education meted out penalties to offenders.

1.1.2.7 Language policy

The 1980 census revealed that there are 24 language groups in South Africa. It indicated that the following languages are spoken in the country: English and Afrikaans, six other Western languages, five Indian languages, Chinese and four groups of African languages namely, the Nguni (i.e. Zulu, Xhosa, Ndebele and Swazi), the Sotho (i.e. Northern Southern and Western Sotho or Tswana), the Tsonga and the Venda language groups (Cluver 1992; Lemmer & Squelch 1993). It is thus clear that South Africa is a country with language diversity.

As a result of the segregation policy of the past, various homelands and independent states were created. In each of these regions an indigenous language and English were employed as official languages. At present eleven official languages are spoken in South Africa viz: English, Afrikaans, Zulu, Xhosa, Northern Sotho, South Sotho, Tswana, Swazi, Tsonga, Venda and Ndebele (Cluver 1992:114). Although most speakers employ their mother tongue as an official language, the work opportunities in which black languages are the only language prerequisite are limited. In order to succeed in the workplace and Western-

orientated society, many black people have to be trilingual. This implies that they need to know their own indigenous language, as well as English and Afrikaans (Cluver 1992:114).

A closer investigation of SA language competence reveals that although the only official languages until recently were English and Afrikaans, in practice more than half of the black population cannot speak, read or write English or Afrikaans. This implies that they are not proficient in English or Afrikaans as a second language. According to Cluver (1992:113), the official languages only served the needs of one half of the population. In addition, language policies do not always lead to linguistic competence amongst the population.

In line with the previous official language policy of bilingualism in English and Afrikaans, learners who attended Afrikaans-medium schools, were instructed in Afrikaans from Grade 1 and English was introduced as a compulsory L2 from Grades 4 to 12. These learners only had to acquire a functional knowledge of English in order to communicate in society (i.e. BICS) and were not required to employ English as a medium of instruction for all school subjects (Lemmer & Squelch 1993:41). In contrast, many other non-English speaking SA school children in homelands schools who were taught under the administration of the *Department of Education and Training* (DET), were taught in their own language or mother tongues for the first four school years (Cluver 1992:114), but at the beginning of the higher primary phase (Grade five), English became the medium of instruction for the entire curriculum at these schools. This "transition" caused problems because there has been a "disparity between the English proficiency" of these students and the "proficiency required of them in order to master all school subjects through the medium of English" at school (Lemmer & Squelch 1993:41). BICS might be an index of literacy but in order to be effective learners, students require proficiency in the more formal, decontextualised uses of language associated with the written mode. The factors discussed above might contribute to the fact that many black L2 students experience problems at *historically white* tertiary institutions where it is taken for granted that they have the reading/writing skills required of them. Instead of assuming that because students have well developed BICS, that they ought to be academically literate, emphasis should be placed on assisting students to acquire well developed CALP. The Minister's Language Policy in Education came into effect during January 1997. It promotes multilingualism in the classroom, and can be expected to

contribute to language development across the curriculum with corresponding implications for CALP development for L2 learners.

1.1.2.8 A combination of factors

In addition to the causes attributed to producing 'at risk' SA tertiary students which have been discussed previously (cf. § 1.1.2.1 to 1.1.2.6), the following factors also play a contributory role: lack of adequate study facilities in homes; difficulties experienced in commuting from home to university; inadequate counselling both prior to entry and during attendance at university; a lack of perception as to the demands of university life; unrealistic parental expectations and lack of parental support (Jardine 1986:57). In addition, affective factors such as motivation, self-esteem, self-confidence, attitudes, dispositions and beliefs or opinions about learning play a contributory role in black L2 students' success, or lack thereof at tertiary level.

In discussing factors affecting the success of black education practices, Macdonald (1990:90) refers to the Namibian study conducted by Phillipson, Skutnabb-Kangas & Africa (1986). According to this study, several factors play an important role in L1 and L2 learning success. These are: learner-related affective factors (e.g. less anxious students display high levels of internal motivation and self-confidence); linguistic factors (linguistically disadvantaged students are forced to operate in a second or third language and as such tend to battle academically); cognitive factors (L2 students who do not have well-developed CALP and BICS tend to experience problems with academic tasks); pedagogical factors (such as past SA teaching and learning practices) and socio-cultural factors. In the past, Namibia was subject to SA educational policies. The Namibian study suggests that because South African black education policy was deficient in the former areas in the past, L2 learners have had a low degree of academic success.

The writer of the present study takes the view that the inadequate academic performance of black L2 students' cannot be attributed to only a single factor. Instead, a combination of factors such as cognitive/conceptual, linguistic, literacy, learning, sociocultural and learner-related affective factors appear to play a contributory role with respect to this problem. Finally, it should be stressed that although an attempt has been made to artificially separate

and discuss these factors on their own (cf. § 1.1.2.1 to 1.1.2.6), they are all inextricably interwoven and intertwined.

1.1.3 Identifying specific aspects of the problem under investigation

All of the above factors naturally contribute to the fact that black L2 students in general do not perform adequately academically. However, this study will focus on three important and related skills underlying the ability to read and listen to learn, viz. *identification of main ideas*, *summarisation* and *note-taking*. In addition, attention will also be given to aspects of the students' *metacognitive knowledge*, specifically those related to reading and listening to learn.

The ability to read successfully is especially important at tertiary level as it gives students access to information and knowledge required for academic courses. It also helps to reinforce aspects of knowledge dealt with during lectures (Pretorius 1996).

More specifically, reading for comprehension and for studying, that is, reading to learn, with the associated competency of listening to learn, are very important skills at tertiary level. Both L1 and L2 students find critical reading for studying difficult (Brown & Day 1983:1). It should be stressed that it is not just the kind of reading but the volume of material which is problematic to L2 students who read slowly and with great effort. Several researchers (e.g. Jardine 1986; Blacquièrè 1989; Perkins 1991) have shown that black SA L2 tertiary students also experience difficulty in reading and understanding academic textbooks unassisted and are consequently unsuccessful at tertiary level. The two main areas of reading involved in tertiary learning/tertiary studies (these terms are used as synonyms in the present study) are reading for meaning and reading for remembering/studying. These are similar constructs.

According to Penning & Raphael (1991:397), reading comprehension is a "complex, interactive process that involves the reader, the text and the author in a communicative context". Reading for meaning means reading for comprehension whereas reading for remembering implies reading (a) for meaning or understanding of the material one is studying, and (b) in order to remember or retain the material for examination purposes (Baker & Brown 1984).

When discussing reading for studying, Baker & Brown (1984:367-8) point out that all the activities of reading for meaning such as decoding, understanding, background knowledge of the topic, monitoring comprehension and evaluating understanding are involved. In addition, whilst reading for studying or remembering, it might be necessary to identify the main idea, develop effective study strategies such as summarisation, test one's mastery of the study material, and pay extra attention to material that cannot be remembered automatically.

1.1.3.1 Identifying the main idea

An important skill in comprehending text is that of identifying main ideas. The main idea is the most important and central idea in a paragraph and is often found in the topic sentence (Boning 1982:14-15; McWhorter 1992:139). Boning (1982:14-15) points out that identifying the main idea is the most basic of all reading techniques and is a primary study skill. Tarlow (1990) maintains that poor comprehenders find it difficult to identify the main idea. Black SA L2 tertiary students have been found to experience problems in comprehending text (Blacquièrè 1989; Perkins 1991). In particular, students experience problems when the main idea is not found in the first sentence of a paragraph. Students also find it difficult to infer the topic sentence (Brown & Day 1983; Hidi & Anderson 1986:485).

The fact that black L2 tertiary students apparently have a strong reliance on rote learning which often involves unanalysed uncomprehended chunks of information or inert knowledge, might be a reason why L2 students have difficulty in identifying main ideas. Garner (1987) believes that the reader must have knowledge of the procedures and strategies employed in identifying main ideas. These might include training in the use of a cognitive strategy (i.e. the steps of rules applicable to identifying the main idea). It might also include heightening students' metacognitive awareness by means of training in employing self-regulation, monitoring and self-evaluation whilst reading for the main idea. Baker & Brown (1984:370) state that to succeed, L2 students need rudimentary self-knowledge (e.g. of themselves as memorizers), task knowledge (e.g. purpose of task, such as gist recall vs verbatim recall) and text knowledge (e.g. importance vs triviality and organization of text). These issues will be dealt with more fully in Chapters 2 and 3.

1.1.3.2 Summarisation

In order to summarise one needs to know what the main idea of the text is. Poor readers find summarisation difficult (Johns 1985). Jardine (1986) states that because black L2 students cannot read well they cannot write coherent summaries. Their inability to summarise has also been attributed to their reliance on rote learning, which does not require that they interpret, apply, compare or evaluate information. As a result, these students tend to be unable to analyze or comprehend chunks of information and tend to be inert learners. Kirkland & Saunders (1991:105) feel that summarising, an area of reading comprehension for study purposes, is essential in a L2 tertiary setting owing to the frequency of summary assignments as a study aid and for academic success. The South African Senior Certificate examination in English First Language attaches importance to *précis*, which is a form of summary. Virtually any written assignment requires summarising skills. The student needs to select only the information that is relevant to the assignment task, and exclude the rest. At tertiary level especially, L2 students are required to make brief, concise notes in English on college and university lectures and textbooks.

The concept *summary* or *précis* means brief and exact. This implies rewriting the text in about one-third of the original length in full, using connected sentences and retaining the gist (Kühn, Meiring, Scheffler, Marais & Oosthuizen 1987:49). Students need adequate reading skills and comprehension levels plus an adequate control of grammar, vocabulary, and writing skills to manipulate and express the information (Kirkland & Saunders 1991:108). There are traditional ways of teaching students summarising skills such as teaching them the rules of summarising (i.e. cognitive strategies). For example, Baker & Brown (1984:2) and Garner (1987:57) identify the following rules of summarising:

- deletion of unnecessary/trivial material;
- deletion of redundancy;
- substitution of a superordinate term or event for a list of items; use of a superordinate term for a list of actions;
- selecting a topic sentence provided in the text (identifying the main idea); and
- inventing a topic sentence if there is not an explicit one in the text.

Hidi & Anderson (1986:489) and Stotesbury (1991:37) stress the importance of identifying the controlling idea (i.e. the title or heading of a text), which is similar to the main idea in a passage. This is because the heading provides the reader with a summary of the text. These authors (Hidi & Anderson 1986:489; Stotesbury 1991:37) maintain that students should be assisted in deciding what information is important in a text by being given an opportunity to practise identifying the central or general idea, i.e. providing a heading for the summarisation passage.

In addition to teaching summarising skills in the traditional manner, as referred to in the previous paragraphs, they can be taught in a way that raises students' metacognitive awareness. This includes fostering awareness by means of metacognitive strategies such as self-regulation of attention; awareness of procedural rules; application of strategies, self-monitoring, self-evaluation and checking. These issues will be discussed more fully in Chapter 3.

1.1.3.3 Note-taking

Note-taking comes into the *listening to learn* context of lectures and tutorials and also in the *reading to learn* context. According to Blacquière (1989:77), L2 black tertiary students make inadequate notes during reading and lectures and often misinterpret what they read. Jardine (1986:61) states that because these students cannot read well and lack the necessary listening skills they experience difficulty with taking notes while reading and taking notes during lectures.

Note-taking during reading implies that learners have to write down the main idea, and other important points, and paraphrase and outline information from a reading text (Chamot 1987:77). McWhorter (1995:278) suggests that after students have edited their notes, they can add words and phrases that briefly summarise the notes to the left margin of the page of notes. In other words, the aim of note-taking is to extract the essential from a prose passage and to schematize what is given in the passage by linking sentences (Vezin 1981:23). By means of note-taking the learner indicates whether he understood or did not comprehend the prose passage. Note-taking during reading involves listening and writing skills. Note-taking by means of reading is a genre of summarisation.

Note-taking in class or in the lecture situation is a complex linguistic task. Traditionally, note-taking requires that the student should be able to comprehend the lecturer's stream of speech, separate important from unimportant information, provide a logical framework for the important information, and write down the important information in its logical framework, using the target language (Adamson 1990:70). Note-taking by means of listening requires integrating listening and writing (Fanning 1988:107). A metacognitive way of teaching note-taking might entail getting students to: (a) focus attention by means of cues, (b) arrange and plan their learning by making them aware of the purpose of the listening task, such as by listening for the main and supporting ideas, and (c) evaluate and monitor their listening. These issues will be dealt with more fully in Chapter 2.

1.1.3.4 Metacognition

Metacognition is a key construct in the present study and is discussed in greater detail in Chapter 3. In the meantime, a working definition will be given. *Metacognition* has been defined as one's awareness/knowledge concerning one's own cognitive processes and products or any related to them, e.g., the "learning-relevant properties of information or data" (Flavell 1976:232). Metacognition also includes "the active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive object or data on which they bear, usually in the service of some concrete goal or objective" (Flavell 1976:232). In other words, metacognition is essentially "cognition about cognition" and plays an important role in attention, reading comprehension, oral comprehension and problem-solving. Garner (1987:16) asserts that if cognition involves perceiving, understanding and remembering, then metacognition involves thinking about one's own perceiving and understanding. In the present study, metacognition refers to knowledge about cognition and regulation of such knowledge during reading or listening.

Flavell (1981:38) maintains that metacognition can be "differentiated into metacognitive *knowledge* and metacognitive *experience*, and one can distinguish between *metacognitive* and *cognitive strategies*" (Emphasis mine - G K-D).

Metacognitive knowledge refers to knowledge the learners have about themselves as learners, the learning task and the strategies they employ (Garner 1987:17) whilst learning. There are

three types of metacognitive knowledge: Declarative, conditional and procedural knowledge. *Declarative* or *factual knowledge*, includes definitions of words, facts and rules. In other words, it refers to knowledge that the learner has about his learning. *Conditional knowledge* is knowledge the learner has of when and why to apply specific learning strategies. *Procedural knowledge* refers to the learner's ability to apply knowledge of rules or solve problems (O'Malley & Chamot 1990:21; 24).

Metacognitive experiences are conscious experiences (ideas, thoughts, feelings, "sensations") related to the learning task (Flavell 1981:40). For instance, students' cognitive self-appraisal, self-concepts, attitudes, motivation, beliefs and judgements about themselves as learners or the learning task can promote or impede learning or reading (Paris & Winograd 1990).

According to Flavell (1981:41), *cognitive strategies (or actions)* refer to those activities that are "undertaken to achieve the goals of an enterprise" for instance, trying to understand the intended meaning of a reading passage or lecture. Text summarisation, note-taking and main idea identification are also examples of cognitive strategies (Garner 1987:110; Rubin 1987:77). According to Oxford (1990:136), *metacognitive strategies* "go beyond purely cognitive devices" and enable learners to centre, arrange, plan and evaluate their learning. Richards *et al.* (1992:227) claim that metacognitive strategies involve thinking about the mental processes employed in the learning process (i.e. self-awareness), monitoring learning while it is taking place, and evaluating learning after it has occurred. Rubin (1987:25) asserts that metacognitive strategies are employed to oversee, regulate or self-direct language learning. Learners "regulate their learning by planning, monitoring and evaluating their learning activities" (Wenden 1982 in Rubin 1987:25). It can thus be deduced that metacognitive strategies involve self-awareness/knowledge, self-regulation, planning, monitoring and evaluating of the learning process by learners. Researchers stress that learners who use learning strategies, and in particular a combination of cognitive and metacognitive strategies, are generally successful learners (Baker & Brown 1984; O'Malley *et al.* 1985; Rubin 1987:15).

Metacognition involves skills in its own right. Just as good readers are good at identifying main ideas and summarising, so do they have well developed metacognitive skills. This

implies that poor readers have underdeveloped metacognitive skills. With respect to reading and listening comprehension, good readers and listeners monitor their comprehension and use repair strategies when comprehension breaks down. The metacognitive skills involved in reading for the main idea and summarising are: selective attention, self-regulation, planning ahead, checking and evaluating/monitoring the outcome of reading performance in relation to specific goals (Baker & Brown 1984).

The present study will focus on the metacognitive skills involved in reading for the main idea and summarising, and will include the following: identifying the purpose of reading/summarising, focusing attention, self-regulation and monitoring of reading and summarising activities, planning, self-questioning, checking and evaluating activities. The metacognitive skills for listening comprehension by means of note-taking will include selective attention (e.g. listen for the main and controlling ideas), comprehension monitoring and evaluating success (Baker & Brown 1984; O'Malley *et al.* 1985; O'Malley & Chamot 1990).

1.1.4 Addressing the problems of L2 students

Cognizance is taken in this study of the fact that a combination of factors (i.e. cognitive/conceptual, linguistic, learning, literacy, socio-cultural, pedagogical and language policy) as well as affective learner variables such as motivation, attitudes, beliefs and judgements about themselves as learners or the learning task can have an influence on black L2 tertiary students' general inability to perform adequately academically.

As was pointed out earlier (cf. § 1.1.3.1), black SA L2 tertiary students experience problems in comprehending text, which includes identifying the main idea. As a result of their inability to read well many students cannot write coherent summaries. Because they lack the necessary listening and reading skills, they find it difficult to take reading notes or take notes during lectures (Jardine 1986; Landman 1987; Blacquièrè 1989; Perkins 1991). Furthermore, it seems that poor readers have poorly developed metacognitive skills compared to good readers (Baker & Brown 1984). As the present exploratory study focuses on four L2 problem areas underlying L2 learners' inability to read to learn, viz. *identifying main ideas, summarising, note-taking* and *metacognitive skills* (specifically those related to reading and

listening to learn), it is now necessary to examine ways in which these L2 problems can be addressed.

As stated, because many black L2 students have been exposed to particular teaching and learning styles at school, they tend to approach the tertiary learning task in a passive way and are dependent learners. To address the problem, such learners need to be guided away from a state of dependence to one of independence or autonomy. This not only calls for a change in their attitudes and beliefs about what learning is but their acquisition of relevant learning techniques or strategies (Wenden 1987:11). A similar view is expressed by Thompson & Taymans (1994), who state that academic failure can be attributed to strategic difficulties rather than to limitation in learning capacity. Students who learn appropriate strategies can meaningfully improve their reading and learning performance. Collins *et al.* (1980:404) advocate that students should explicitly be taught strategies for dealing with reading problems such as comprehension difficulties. Baker & Brown (1984:375) suggest that L2 students should receive instruction in rules and strategies for reading and summarising. Williams (1984) proposes that listening and note-taking strategies should be taught to students.

In the preceding sections it was suggested the black L2 students are often overwhelmed by the "differentness" of studying at *historically white* tertiary institutions, and that they experience difficulties with reading and listening comprehension as well as note-taking and have problems with rules applicable to reading for the main idea and summarisation. It is thus essential to train these students in a combination of metacognitive and cognitive strategies for successful learning.

The present exploratory study is one of the few to be undertaken in this area of inquiry in South Africa, in that it looks at the effect of training black L2 tertiary students in metacognitive and cognitive strategies applicable to reading and listening comprehension.

1.2 RESEARCH AIMS

The problem the researcher wished to focus on was whether tertiary students would benefit from explicit instruction in main idea identification, summarising and note-taking. One way of testing the efficacy of such instruction would be to set up an experimental and control

group, and design an intervention programme for the experimental group. The aim, then, of this exploratory study was to ascertain whether an experimental group comprising 'at risk' black L2 tertiary students would benefit academically from being taught learning strategies, specifically a combination of metacognitive and cognitive strategies applicable to reading and listening comprehension, compared to a control group that was not taught these skills.

It was hoped that the findings of this study would make a contribution to L2 theory and practice in South Africa by showing the importance of a combination of metacognitive and cognitive instruction in tertiary learning and teaching situations.

In order to try and achieve these aims, the students were instructed in the use of the following metacognitive strategies, for reading and summarisation:

- *Centre their learning* by focusing attention.
- *Arrange and plan their learning* by identifying the purpose of the learning task (i.e. to identify the main idea in a passage and/or to summarise a passage).
- *Evaluate their learning* by means of self-testing and monitoring in order to ascertain whether comprehension is occurring, and to apply fix-up strategies such as self-correction when it is not (Brown 1980; Kaplan 1990; Oxford 1990; Paris & Winograd 1990; Pearson & Fielding 1991).

To try and achieve the aims with regard to listening comprehension for note-taking the students were taught the following metacognitive strategies:

- *Centre their learning* by paying attention and listening for cues from the lecturer such as "I would like you to underline ...).
- *Arrange and plan their learning*: The lecturer gets the students to become aware of the purpose of the listening task by asking them to repeat her instructions, i.e. they have to pay attention, listen for the main, supporting and controlling ideas (e.g. find a title for the passage). In addition they also have to plan for the note-taking task (i.e. they listen in order to write down a dictated passage). They then have to regulate/monitor their listening by employing the reading for the main idea strategies to listening for the main idea.

- *Evaluate their learning* by means of self-testing and monitoring in order to keep track of their listening comprehension success or failure. Furthermore, students employ fix-up strategies such as self-correction when comprehension difficulties arise and finally check their success against the answer provided by the lecturer (Baker & Brown 1984; Oxford 1990; Paris & Winograd 1990; Pearson & Fielding 1991).

The students were also instructed in the use of cognitive strategies such as

- practice and repetition of rules pertaining to reading for the main idea and summarisation;
- summarisation; and
- note-taking for reading and listening comprehension.

The motivation for this decision was that because black SA L2 students are generally regarded as field-dependent and passive learners, it was thought that they would benefit from using strategies which suited their learning style, such as repetition and practice (which are cognitive strategies) in addition to employing metacognitive strategies.

The research does not directly focus on affective and social strategies, which are similar to what Flavell (1981) refers to as metacognitive experiences. However, the lecturer who taught the students metacognitive and cognitive skills in a small group situation was asked to observe students' attitudes, motivation, sharing and questioning behaviour, etc. in an indirect, subjective and observational way. Her observations would thus be subjective and tentative.

The black L2 tertiary students in the present exploratory study had each obtained DET senior certificates and been admitted to a first year, tertiary level academic course in the Education discipline, Sociopedagogs. The instructional materials were culturally relevant and the themes deal with the plight of many black children in South Africa. The academic language of the textbooks was subject-specific, that is, it is concerned with Sociopedagogical issues.

1.3 POTENTIAL METHODOLOGICAL PROBLEMS IN RESEARCH

When designing an experiment, the researcher aims at both rigour and relevance, yet often both cannot be attained simultaneously and either a compromise must be settled for, or a choice emphasizing one or the other (Tajfel & Fraser 1978:51). Various research designs represent different choices and compromises. For instance, an experiment is a "procedure for testing an hypothesis by setting up a situation in which the strength of the relationship between variables can be tested" (Nunan 1992:230). A true experiment consists of "control and experiment groups to which subjects have been randomly assigned, and in which all subjects are tested before and after the intervention or treatment under investigation has been administered to the experiment group" (Nunan 1992:230). In real life, a true experiment is difficult, especially in an educational context, because of the difficulty of randomly organising students into groups (i.e. the researcher often 'inherits' students already assigned to classes). The researcher therefore needs to compromise and opt for a quasi-experimental design. In the present study the researcher opted for a quasi-experimental design which is "an approximate but not truly experimental method" (Dane 1990:104).

Nunan (1992:230) states that a quasi-experiment has "both pre- and post-tests, and experiment and control groups, but no random assignment of subjects". Ary *et al.* (1990:336) state: "Because the quasi-experimental design does not provide full control, it is extremely important that the researcher be aware of the sources of internal and external validity and consider both these sources in the interpretation". These are issues that will be taken up again in Chapter 6 (cf. § 6.2). One of the advantages of employing a quasi-experimental method is that it enables the researcher to carry out quantitative research in a complex environment such as education. A weakness of this method is that it is often not possible to control possible confounding variables. McDonald (1970:111) asserts that even in a carefully designed study, i.e. a study "carried out with comparable experimental and control groups providing for control of many important variables", the following variables might influence the study: (a) the influence of time spent on the task; (b) the Hawthorne effect; (c) the placebo effect and (d) the teacher effect.

1.3.1 Time spent on the task

Tuckman (1994:133) states that sometimes variables such as the time spent on the experiment are overlooked as control variables. To try to combat the influence of this factor on a research undertaking of this nature, the researcher could try to get both groups (i.e. the experimental and control groups) to spend an equal amount of time and effort on the task. However, in the present study, it was difficult to formally control the variable 'time spent on the task' because of the practicalities of real-life situations. For instance, the control group had to spend 13 'free' lessons engaged in reading and studying for their Sociopedagogics examination whilst the experimental group participated in the intervention programme. Both groups of students used similar texts i.e. their Sociopedagogics textbook. The possibility exists that the students in the control group might not have spent an equal amount of time on their studies and might even have wasted their time in their 'free' study periods.

1.3.2 The Hawthorne effect

Cook (1968 in McDonald 1970:111) defines the *Hawthorne effect* as follows: "...a phenomenon characterized by an awareness on the part of the subjects of special treatment created by artificial experimental conditions". The Hawthorne effect is especially likely to occur in reading programmes where the teacher relies heavily on special instrumentation or believes in the beneficial effects of a new method of instruction (McDonald 1970:113; Reber 1985:317). To try and counter the Hawthorne effect, the researcher could try and find out how both groups feel about the new method or programme for reading and listening for the main idea and summarisation. For instance, are they enthusiastic or unenthusiastic towards any innovation? The possibility also exists that the Hawthorne effect might have arisen in the present study because the control group did not do anything specific except learn for the examinations. The possibility also exists that the experimental group could do better on the post-test because of the extra quality time, extra teaching and special attention they received. Another way to counter the Hawthorne effect is to keep the control group busy with relevant albeit non-target tasks. The Hawthorne effect also seems to be more prominent in short-term studies where the novelty effect of the intervention programme is felt more strongly. Longitudinal studies that continue over several months have a tendency to make the novelty effect wear off.

1.3.3 The placebo effect

Fisher & Dlin (1956 in McDonald 1970:112) define the *placebo effect* as a "... mechanical ... or treatment employed, with or without ritual, but always with the suggestion or implication of its powerful and helpful properties". The placebo effect may be related to the attitude (e.g. enthusiasm, belief) of the researcher or students or to the atmosphere (e.g. feelings of security, insecurity), to the treatment situation itself or to the expectancy of the researcher and the subjects. McDonald (1970:113) is of the opinion that the placebo effect is particularly likely to be found in reading programmes where the teacher relies on a novel method of instruction or a method of instruction which she believes cannot be measured by existing assessment instruments. It is thus important that the researcher should be aware of the placebo effect, that is, the possibility that the experimental group, who receive some kind of instruction about strategies that they believe to have special qualities, will in fact improve due to this belief rather than as a result of the intervention itself. An ideal situation would be to include an experimental and two control groups. One control group receives no treatment whereas a second group is provided with "irrelevant, unrelated intervention" that especially provides for the control of the placebo effect (Tuckman 1994:172). However, due to the short duration of some studies and the difficulty of getting access to more groups of students, it might not be practicable to have two control groups in order to control for the placebo effect. This was indeed the case in the present study.

1.3.4 The teacher effect

Tuckman (1994:133) remarks that a variable such as attention from the experimenter is occasionally overlooked as a control variable. It is thus necessary that the researcher should be aware of the fact that the character, personality and behaviour of the teacher might have an effect on the students which in turn, might affect the results of the experiment. Even the expectations of the teacher might have an effect on the students (de Wet, Monteith, Steyn & Venter 1981:91). According to Tuckman (1994:133), the teacher effect can be controlled by employing the same teacher for both groups (i.e. the treatment and control groups) and by trying to give both groups equal teacher attention. In the present study it was difficult to give both groups equal teacher attention because of the short intervention programme. The

researcher tried to control the 'teacher effect' variable to some extent by making sure that the control group had settled down and was attending to their studies before the researcher and the lecturer attended to the experimental group.

In conclusion, Cozby, Worden & Kee (1989:63) stress that because the quasi-experimental "is not a true experimental design because the assignment of the groups is not random, it is possible that they are not equivalent". For this reason, it is necessary for the researcher to apply a t-test for independent data to evaluate if the two groups are evenly matched or different at the onset. Such a test was applied in this study, and the details of it will be discussed in Chapter 5 (cf. § 5.5).

The methodological problems inherent in experimental studies conducted in educational contexts have been briefly dealt with in this section. These issues will be taken up again at relevant points in the course of this dissertation (e.g. 4.10 and 6.2).

1.4 PROBLEM FORMULATION

In the light of the problems identified above, the main problems on which the research focuses can be formulated as follows:

- Will 10 'at risk' L2 tertiary students in an experimental group benefit from being taught a combination of metacognitive strategies (i.e. metacognitive awareness, self-regulation and monitoring) applicable to identification of main ideas, summarising and dictation and cognitive strategies (i.e. the procedures and rules) when compared to a control group?
- Will 10 'at risk' L2 tertiary students in an experimental group be able to identify the sentence containing the main idea after instruction in the use of a combined metacognitive and cognitive technique?
- Will 10 'at risk' L2 tertiary students in an experimental group benefit from instruction in the use of a summarising technique? More specifically will they be able to
 - * write the passage in the suggested number of words or fewer;

- * delete examples, repetitive words or descriptive words;
 - * use a superordinate term when applicable; and
 - * provide a controlling idea (i.e. select a suitable title for the two summarising passages).
- Will 10 'at risk' L2 tertiary students in an experimental group benefit from instruction in note-taking from reading when compared to a control group? More specifically will they be able to -
 - * identify the sentence containing the main idea;
 - * provide a controlling idea (i.e. find a suitable title for the passage); and
 - * identify a supporting idea?

1.5 RESEARCH HYPOTHESES

This study sets out to test 11 hypotheses. Nine hypotheses relate variously to identification of main and controlling ideas, summarisation and note-taking. One hypothesis pertains to identifying the supporting idea in the post-test only. The final one pertains to the overall effectiveness of teaching black L2 tertiary students a combination of metacognitive and cognitive strategies.

1.5.1 Hypothesis relating to reading for the main idea

Hypothesis 1

H1: There will be a significant difference in the mean scores that measure the ability to identify the sentence containing the main idea in the pre- and post-tests of the experimental and control groups respectively.

1.5.2 Hypotheses relating to summarisation

Hypothesis 2

H2: There will be a significant difference in the mean scores that measure the ability to write a summary passage in the suggested number of words in the pre- and post-tests of the experimental and control groups respectively.

Hypothesis 3

H3: There will be a significant difference in the mean scores that measure the ability to apply the deletion rule in the pre- and post-tests of the experimental and control groups respectively.

Hypothesis 4

H4: There will be a significant difference in the mean scores that measure the ability to apply the superordination rule in the pre- and post-tests of the experimental and control groups respectively.

Hypothesis 5

H5: There will be a significant difference in the mean scores that measure the ability to provide a controlling idea in the pre- and post-tests of the experimental and control groups respectively.

Hypothesis 6

H6: There will be a significant difference in the mean scores that measure summarisation ability in the pre- and post-tests of the experimental and control groups respectively.

1.5.3 Hypotheses relating to note-taking**Hypothesis 7**

H7: There will be a significant difference in the mean scores that measure the ability to listen for the sentence containing the main idea in a dictation passage in the pre- and post-tests of the experimental and control groups respectively.

Hypothesis 8

H8: There will be a significant difference in the mean scores that measure the ability to identify a controlling idea in the pre- and post-tests of the experimental and control groups respectively.

Hypothesis 9

H9: There will be a significant difference in the mean scores for note-taking ability by means of dictation in the pre- and post-tests of the experimental and control groups respectively.

1.5.4 Hypothesis relating to listening for the supporting idea whilst note-taking

Hypothesis 10

H10: There will be a significant difference in the mean scores that measure the ability to listen for the supporting idea in a dictation passage in the post-tests of the experimental and control groups.

1.5.5 General hypothesis: Metacognitive and cognitive strategies

Hypothesis 11

H11: There will be a significant difference in the mean scores that measure the ability to apply metacognitive and cognitive strategies to reading and listening for the main idea, summarising and note-taking by means of dictation in the pre- and post-tests of the experimental and control groups.

1.6 STRUCTURE OF THE DISSERTATION

In Chapter 1 the background to the problems that are investigated in this study are outlined and the aims, objectives and hypotheses of the study identified. The remainder of the study is structured as follows:

Chapter 2 looks at the importance of reading, listening and learning within the context of L2 tertiary learning and instruction.

Chapter 3 deals with the key construct *metacognition*. It also briefly examines the relationship between metacognition and reading comprehension, with special reference to

study skills such as reading for the main idea, summarising and listening comprehension by means of note-taking.

Chapter 4 describes the nature of the intervention programme.

In Chapter 5 the subjects, tasks and materials, procedures and data analysis are described. The results of the empirical study are also given and interpreted.

Chapter 6 contains a review of the study and an identification of its limitations. In this chapter I also draw conclusions and make recommendations for future research.

CHAPTER 2

THE IMPORTANCE OF READING/LISTENING COMPREHENSION IN L2 TERTIARY LEARNING

2.0 INTRODUCTION

The present chapter and the following chapter serve as literature reviews of the core constructs underpinning this study, viz. reading comprehension, listening comprehension and metacognition. In Chapter 2, the common problems that L2 learners experience will be discussed, viz: reading/listening and learning problems. The present chapter serves as a preamble to Chapter 3, where the core concept of this study, metacognition and its ramifications, will be reviewed. The interrelationship between metacognition, reading comprehension and listening comprehension for L2 tertiary learning will also be discussed in Chapter 3.

In Chapter 1 it was shown that tertiary students who study through the medium of an L2 frequently have reading and listening comprehension problems. They also have problems relating to metacognitive awareness. The purpose of this chapter is to identify specific reading and listening problems as well as more general learning problems experienced by L2 learners who study through the medium of an L2.

The first section of this chapter has several aims:

- to discuss reading and listening and their component skills;
- to discuss the relationship between reading and L2 pedagogy;
- to give a historical overview of L2 reading models;
- to focus on comprehension as a component of reading and listening in the L2 study and lecture situation;
- to identify reading and listening problems experienced by L2 learners; and
- to show the relationship between reading comprehension and listening comprehension.

The second section of this chapter deals with a discussion of teaching and learning in the L2 learning situation and has the following aims:

- to briefly discuss the concept *learning*;
- to briefly examine the interaction between learning and teaching;
- to identify the demands and skills in the L2 tertiary learning situation; and
- to discuss the need for teachers to develop their personal thinking and learning skills and those of their students.

2.1 READING

Reading is a complex process. There are various definitions and explanations of reading. Pretorius (1996:39) defines the reading process as follows:

... a multi-componential phenomenon that includes the rapid and simultaneous interaction of numerous processes. For example, it requires encoding or bottom-up oculomotor processes that direct the eye from one print element to the next, perceptual processes that encode the visual pattern of a word, lexical processes that access word meaning from memory, and various other linguistic processes that compute the semantic and syntactic relationships among successive words, phrases, and sentences. In addition, there are comprehending or top-down cognitive mechanisms that compute the semantic and logical relationships between successive sentences and paragraphs at text-level.

If readers experience problems in performing any of the above processes, decoding and comprehension problems can result. The differences between good and poor readers will be discussed later.

2.1.1 The two types of reading

There are two types of reading namely, oral and silent. Oral reading occurs when a written text is read aloud. Silent reading takes place when a person reads a written text privately, i.e. to himself, instead of reading it aloud. Both types of reading can be done with or without understanding the content being read (Richards *et al.* 1992:306). The present study will focus on silent reading and metacognition.

2.1.2 The concept *comprehension*

According to Wilson (1986:76), it is difficult to clearly define what comprehension (reading for meaning) is. This is because there is uncertainty regarding the concept *comprehension*. Nell (1988:78) observes that definitions of comprehension tend to be solipsistic. The author (1988:78) states: "Indeed, the recursiveness of definitions of comprehension and meaning (comprehension is understanding is apprehending a meaning) is their most striking characteristic".

In order to try and understand the central concept *comprehension*, certain assumptions must be made about "what comprehension is and how it occurs" (Wilson 1986:76). For instance, it is often believed that when understanding accompanies both oral and silent reading it is known as reading comprehension. A weakness of this assumption is that one cannot define comprehension so simplistically i.e. by supplying a synonym (understanding).

Tierney & Pearson (1986:88) assert that it is important to realise that "comprehension never occurs in a vacuum" and that it cannot proceed independently of a reader's background knowledge or experiences (cf. § 2.1.4.3). Moreover, the authors (1986:86) remark that comprehension is "doomed to be at least somewhat idiosyncratic or at least conditioned by individual or group differences in background knowledge". This implies that new ideas or information become meaningful to readers when they can be related to what the readers already know. The authors (1986:85) suggest that when teachers teach reading comprehension, less reliance should be placed on traditional readability procedures involved in text selection and use. Instead it should be recognized that a reader has a right to interpretation and that reading comprehension is an interactive process involving more than a regurgitation of an author's explicit ideas (cf. § 2.1.4.5).

Readers should rather be encouraged to -

- actively engage their background knowledge, attention, focus and interest prior to, during, and after reading;
- monitor their own progress whilst reading a text,
- explain how they allocate their attention to text versus prior knowledge;

- become aware of their level of understanding of a text read for different purposes;
- apply fix-up strategies when comprehension is difficult; and
- discriminate new learnings from old knowledge (Tierney & Pearson 1986:85-99).

In addition, readers should be given opportunities to appreciate and evaluate the adequacy of their own perspective and other interpretations (Tierney & Pearson 1986:85).

To gain further insight into the reading process, it is necessary to provide an overview of the historical development of views of and research into L2 reading and listening comprehension from the beginning of the twentieth century to the present.

2.1.3 Reading and L2 pedagogy

Theoretical and empirical work on L1 and L2 reading and listening comprehension has been influenced by various researchers from different fields such as cognitive psychology, psycholinguistics, computer sciences, social psychology, learning theory and educational practice (Spiro, Bruce & Brewer 1980; Kamil 1984:39). Garner (1987:1) states that psychologists and educators have focused on reading comprehension, specifically "learning from text, in school and out". The following is a brief historical record of the changing background of attitudes towards L2 reading and listening comprehension.

At the beginning of the twentieth century the *grammar translation method*, known as the *handmaiden of reading*, with its focus on reading, was used by language teachers. This method of L2 teaching stressed grammar rules, memorization of vocabulary, conjugation of verbs and translation of texts. It was found to be inadequate for L2 learning because it did not prepare students to use the target language communicatively. As a result, the *direct method* became popular in teaching L2 languages in Europe until approximately 1925. Its emphasis was on active oral interaction such as speech and listening comprehension, spontaneous use of language, with no translation between the L1 and L2, and little analysis of grammatical rules. In contrast, educators in the United States felt that it was impractical to teach oral skills and that attention should be paid to reading. This gave impetus to the revival of the *grammar-translation method* during the 1930s and 1940s which was considered

more useful because it emphasized reading skills (Larsen-Freeman 1986:11-12; Brown 1987:57; 95).

When the Second World War broke out, the *Army Specialized Training Programme* (ASTP) or the *Army Method* was developed, which stressed L2 oral/aural competence (i.e. pronunciation, drills and conversation practice). It became popular because a strong need arose to study foreign languages for military reasons, that is, to become orally proficient in the languages of allies and enemies (Larsen-Freeman 1986:31; Brown 1987:96). During the late 1940s and 1950s *The Army Method* was adapted and became known as the *Audiolingual Method* (ALM). The ALM was based on structural linguistics and behaviourism theory and emphasized the importance of oral language skills i.e. listening and speaking (Larsen-Freeman 1986:44). Silberstein (1987:28) asserts that the ALM paid no attention to the teaching of reading and instead favoured the use of dialogues and pattern-practice drills. Grabe (1991:376) points out that reading texts were used primarily to strengthen oral language instruction and were subsequently only introduced when students had already developed a working knowledge of the spoken language. Larsen-Freeman (1986:43) comments that although there was student-to-student interaction in the drills or dialogues, the interaction was teacher-directed.

As stated in Chapter 1 (cf. § 1.1.1), during the late 1960s many L2 or foreign students went to the USA and UK to study English in order to gain admission to universities (Silberstein 1987:29; Grabe 1991:376). During this period, teachers discovered that there was a gap between L2 students' academic requirements and the speaking/listening skills of the various English programmes. This led to a demand for training in reading and studying skills which gave rise to *languages for specific purposes* (LSP). At the same time, the reduced role of reading instruction in the classroom was questioned (Silberstein 1987:29). It was felt that ALM with its emphasis on oral language skills (i.e. BICS) was unsuitable for the needs of L2 tertiary instruction, which required CALP. The ALM was a structured, decontextualised, sentence-based approach. Because of its failure to teach long-term communicative proficiency, its popularity waned (Brown 1987:97). A shortcoming of the ALM was that students lacked practice in taking down notes and reading for studying.

During the 1970s, L2 teachers of foreign students who were enrolled at USA tertiary institutions realized that there was a need for special reading instruction. This meant that reading had to be assigned a greater role than that which it had played before. As a result, the importance of an oral approach which focused on speaking and listening declined in the early 1970s. Instead, advanced reading and writing instruction was emphasized in L2 instruction during the early 1970s (Grabe 1991:376). After examining the needs of L2 tertiary students, a skill-based curriculum consisting of speaking/listening, reading, writing and grammar was introduced. Reading was characterised as a means of teaching L2 or foreign language and as an information processing skill (Silberstein 1987:29). The seventies also saw the emergence of LSP courses (which themselves have undergone various theoretical and pedagogical shifts), in which the development of reading skills started playing a more prominent role. At the same time, cognitive developmental psychologists, influenced by John Flavell (1976), became interested in the concept *metacognition* with regard to reading and learning (Brown, Bransford, Ferrara & Campione 1983:82). This concept will be briefly discussed under the heading *Component skills in reading* (cf. § 2.1.2.5.1). It will however also be discussed in greater depth in Chapter 3.

Communicative Language Teaching has replaced the ALM, and the emphasis is now on communicative competence. This is often with greater emphasis on BICS than on CALP, which means that reading does not always receive the attention it deserves in the L2 classroom, especially when it is not merely an L2 but also a medium of instruction.

2.1.4 A historical overview of reading models

In order to find out how views on reading have changed during the last thirty years, the most prominent/or promising reading views will now be discussed. It will be shown that theorists and researchers have mainly interpreted the reading process by means of three views of reading which emphasize reading processes (bottom-up, top-down and interactive processing).

2.1.4.1 Bottom-up processing

Until the mid-1960s reading was perceived as a *mechanical bottom up decoding process*

which had no connection with thinking processes (Silberstein 1987:28-30). Reading was seen as a series of discrete stages, proceeding from incoming visual data to higher-level encodings (Garner 1987:2). Reading ability was regarded as the possession of certain symbolic 'decoding and pronunciation' skills also known as 'letter-sound code'. Emphasis during instruction was placed on the basic (decoding) skills of reading such as phonics, visual and auditory perception, synthesizing letters and sounds to form words and analysis of some basic sight words.

According to Carrell & Eisterhold (1983:557), bottom-up processing is produced by spoken or written incoming data which in turn, converges into higher level, more general schemata. Similarly, Cook (1989:156) views bottom-up processing as first interpreting the lowest level (i.e. linguistic knowledge) before proceeding to interpret or understand higher or top levels. Reid & Hresko (1981:258) illustrate bottom-up processing as follows: Bottom-up processes such as visual features might lead to higher level schematas such as letters. This, in turn, may lead to higher level schemata such as words. Richards *et al.* (1992:384) state that bottom-up processing makes use of what is already present in the data, such as words and sentences. If applied to reading comprehension, bottom-up processing would be "understanding a text mainly by analysing the words and sentences in the text itself" (Richards *et al.* 1992:384).

While a bottom-up approach to reading might be useful in understanding language and how it works, it is not necessarily the most effective way of teaching reading. This is substantiated by Garner (1987:2), who states that bottom-up models which describe reading as a series of "discrete stages" are ineffective as they fail to explain two important empirical data, namely, that syntactic and semantic processing affect word perception. Reid & Hresko (1981:259) also claim that bottom-up models of reading are inadequate as they fail to recognise the simultaneous interaction among features, letters, words and syntax. Another shortcoming of bottom-up models is that they emphasize basic skills, while problems associated with reading comprehension are considered less critical (Kaplan 1990:77).

2.1.4.2 Top-down processing

During the 1970s there was a swing towards a strong emphasis on top-down psycholinguistic

processes. Reading was viewed as a *top-down process* whereby higher-level processes direct the flow of information through lower levels (Garner 1987:2). Richards *et al.* (1992:384) explain as follows: top-down processing makes use of previous knowledge ("higher-level knowledge") in analysing and processing information received, such as words and sentences. If this were to be applied to reading comprehension, top-down processing would make use of readers' previous knowledge, their expectations and experience. Carrell & Eisterhold (1983:557) maintain that top-down processing occurs when the "system makes general predictions based on higher level, general schemata and then searches the input for information to fit into these partially satisfied, higher order schemata". These authors (1983:557) claim that top-down processing is conceptually driven and assists readers/listeners to decide between two or more possibilities of interpretation. For Cook (1989:158), top-down processing is viewed as interpreting discourse by first hypothesizing about the general units of language, and then moving downwards to the lower levels such as vocabulary, sounds or letters. In a similar vein, Carrell & Eisterhold (1983:557) remark that top-down processing occurs when the "system makes general predictions based on higher level, general schemata and then searches the input for information to fit into these partially satisfied, higher order schemata". This view emphasises that reading cannot be separated from comprehension (Kaplan 1990:78). Proponents of the top-down model in reading regard the reading process as more complex than it is in the view of proponents of the bottom-down processing model. This is because the cognitive prerequisites for reading comprehension are fundamental to the reading process. However, the top-down model of reading has been criticised for being too vague in describing the reading process (Stanovich 1980:34; Garner 1987:2).

2.1.4.2.1 The Goodman/Smith psycholinguistic view of reading

Goodman (1976a:472 in Reid & Hresko 1981:251) defined reading as a "complex process by which a reader reconstructs to some degree, a message encoded by a writer in graphic language". Goodman's research led him to propose that reading was *not* a precise process of "picking up information from the page in a letter-by-letter, word-by-word fashion" (Grabe 1991:377). Instead, Goodman perceived reading to be a selective process (Clarke & Silberstein 1977:136; Grabe 1991:377). Moreover, reading was sampling (i.e. readers do not read every feature of the word but focus on certain features, such as words and phrases to get the meaning of the text), predicting (i.e. readers confirm a prediction by means of

background knowledge they possess of the topic) and a *psycholinguistic guessing game* (Silberstein 1987:30; Cohen 1990:75; Grabe 1991:377). The meaning is in the minds of the readers instead of in the print, although readers must actively *interact* with the print in order to decode the author's message (Reid & Hresko 1981:252). Smith (1982 in Garner 1987:2; Grabe 1991:377) agreed with Goodman that readers sample text information to test conceptually driven hypotheses. More specifically, Smith (1982 in Garner 1987:2), claimed that the "twin foundations of reading are to be able to ask specific questions (make predictions) in the first place, and to know how and where to look at print so that there is at least a chance of getting these questions answered". Furthermore, Smith (1982 in Garner 1987:2), pointed out that prediction in reading comprehension does not imply reckless guessing but the elimination of unlikely alternatives on the basis of prior knowledge. In other words, L1 and L2 readers were viewed as intelligent beings actively searching for meaning, guessing from contextual cues and testing predictions against the text (Silberstein 1987:30).

Goodman (1967 in Silberstein 1987:30) maintained that reading involves an *interaction* of thought and language. According to McKay (1987:18), the latter involves conceptual ability, background knowledge and process strategies. With respect to reading or listening, this means that the L2 learner should have a basic intellectual ability, a knowledge of the world, and reading and listening strategies, as well as familiarity with the phonology, graphemes, lexicon and vocabulary of a language. With regard to the interaction of thought and language, Silberstein (1987:30) asserts that the reader brings an array of information, ideas, attitudes and beliefs to the reading task. Skilful reading depends on an interaction between linguistic knowledge and world knowledge. Several authors (Reid & Hresko 1981:252; Grabe 1991:377) support the view that the more readers know about the topic area in which they are reading, the more they understand and the faster and more fluent their reading becomes.

From the previous discussion, it can be deduced that Goodman and Smith felt that reading was not mainly a bottom-up process but an active process of comprehending (i.e. a top-down process). A drawback of psycholinguistic views of reading is that they tend to overemphasize the selective, guessing-game aspect of reading at the expense of bottom-up processes. In fact, current research on eye movements in reading has shown that reading is a very precise, rapid and highly automated process.

With respect to implications for L2 reading instruction which can be drawn from the psycholinguistic model of reading, Silberstein (1987:30) stresses that if reading is viewed as an active process of comprehending, then students need to be taught skills and strategies to read more efficiently. Grabe (1991:377) also advocates that "students should be taught strategies to read more efficiently". This may include guessing from the context, defining expectations, making inferences about the text and skimming ahead to fill in the context.

2.1.4.3 Schema theory

Schema theory was a major focus for research on ESL reading during the 1980s. Garner (1987:4) asserts that a *schema* is "a set of expectations". With regard to reading or listening a *schema* refers to the reader's or listener's expectations of a specific situation, based on prior knowledge. Cook (1989:69) describes schema as "mental representations of typical situations" which are employed by L1 and L2 learners during reading or discourse to predict the contents of specific situations.

According to Grabe (1991:389), schema theory is a "useful notion for describing how prior knowledge is integrated in memory and used in higher-level comprehension processes". Garner (1987:4) defines a *schema* as "an abstract knowledge structure derived from repeated experiences with objects and events". It is knowledge stored in memory that plays an important role in the interpretation of new information. For the purpose of demonstrating the term *schema*, it can be said that everyone has "pictures" of stereotypical people, situations and knowledge of prior events which they retrieve whilst they are reading or listening and use whilst processing the text or discourse in order to make sense of the situation.

Carrell & Eisterhold (1983:555-7) state that background/prior knowledge (i.e. linguistic, cultural and world) plays a decisive role in the understanding of L2 reading. According to these authors (1983:553), efficient reading comprehension demands the ability to relate textual knowledge content to readers' own background knowledge. This view is also substantiated by Kant (1963 in Carrell & Eisterhold 1983:553), who asserts that new ideas, new information or concepts can only be meaningful if they can be related to what the learners already know. According to Carrell (1986b in Grabe 1991) failure to comprehend the reading text may occur because L2 learners are unable to activate the appropriate

knowledge schema. For instance, a word might not be in a L2 learner's vocabulary, a grammatical rule may have been misapplied or a reader might not have the required cultural background knowledge.

With regard to its implications for L2 instruction, schema theory proved to be very important in improving reading instruction. Research undertaken by Carrell & Eisterhold (1983) found that activating content information plays a main role in L2 students' comprehension and recall of information from a text. More specifically, L2 students need to activate prior knowledge of a topic before they begin to read. If they do not have sufficient prior knowledge they should be given minimal information about the topic to enable them to interpret the text (Grabe 1991:390).

The main contribution of schema theorists was that they criticised the "wisdom of bottom-up instructional strategies" because they viewed reading as the "simultaneous coordination of schema at all levels". They also felt that systems that take top-down processes into consideration are more suitable because reading skills are taught within the context of meaning and therefore employ "all available aids to decoding written language" (Reid & Hresko 1981:258-9). They thus viewed reading as the "simultaneous coordination of schema at all levels" (Reid & Hresko 1981:258).

However, the argument that failure to activate appropriate knowledge schemata causes text comprehension failure is only one possible cause for comprehension problems. Moreover, this view does not account for the learning paradox of new schemata being created without prior knowledge of a topic. How can learners learn new information if they can only understand texts when they activate existing knowledge structures? Good readers understand texts dealing with topics for which they have no prior schemata.

2.1.4.4 Synthesis of the bottom-up and top-down orientations

Two orientations towards the issue of reading and listening arose. On the one hand, some theorists felt that "reading consisted primarily of breaking the code" but on the other hand, other theorists argued that reading consisted "primarily in mapping previous knowledge onto the printed symbol while utilizing the print as little as possible" (Reid & Hresko 1981:257).

This led Rumelhart (1976 in Reid & Hresko 1981:257) to propose that reading is an *interactive process* which necessitates both top-down and bottom-up processing. Moreover, readers or listeners use "cues provided by the writer or speaker to construct the meaning for themselves" (Anderson, Spiro & Montague 1977 in Reid & Hresko 1981:257).

2.1.4.5 The interactive view of reading

Both bottom-up and top-down models of reading were criticised for being too simplistic and ineffective in explaining all the data concerning the reading process (Garner 1987). During 1976, Rumelhart offered a compromise to arguments that reading consisted of either bottom-up or top-down processing by stating that reading is the "simultaneous joint application of multiple knowledge sources" (Rumelhart 1976 in Reid & Hresko 1981:257; Garner 1987:3). Moreover, Rumelhart synthesized the two opposing views by suggesting that reading is an interactive process. To describe the interactive process of reading Rumelhart (1977 in Garner 1987:3) claims the following:

... graphemic input produces information from which important features are extracted. Simultaneous to this extraction, syntactic, semantic, lexical, and orthographic information is being used. Information from all these sources converges upon the "pattern synthesizer". The "pattern synthesizer" uses all the information to produce a "most probable interpretation" of the input. Each of the knowledge sources may use the information provided by other sources; the sources "interact" with each other.

Both Garner (1987:37) and Stanovich (1980:35) maintain that Rumelhart's (1977) view of reading as a simultaneous joint application of multiple knowledge sources is a good example of an interactive model.

Adams (1980:1) demonstrates how top-down and bottom-up processing occur simultaneously at different levels of text analysis:

The top-down processes ensure that lower order information that is consistent with the reader's expectations will be easily assimilated, as it will already have been partially processed. Meanwhile, the bottom-up processes ensure that the reader will be alerted to any information that is novel or does not fit her or his ongoing hypotheses about the content of the text.

According to Stanovich (1980:32), a deficit in any specific process will lead to a reliance on

other knowledge sources, regardless of their level in the processing hierarchy. The author (1980:32) states that an interactive-compensatory model of reading is a better conceptualization of reading performance. Moreover, Stanovich (1980:36) argues that higher-level (top-down) processing does not have to await completion of bottom-up processing. This is because "a process at *any* level can compensate for deficiencies at any other level". Stanovich (1980:36) explains that "a reader with poor word recognition skills may actually be prone to a greater reliance on contextual factors because these provide additional sources of information". To demonstrate this point with respect to good and poor readers, Garner (1987:3) argues as follows:

A reader who has weak decoding skills but some prior knowledge of topic X may be able to apply top-down processing strengths in reading successfully about X. A reader who is skilful in decoding but unfamiliar with topic X may be better off relying on mostly bottom-up processes.

Garner (1987:3) states that the good reader is better than the poor reader at decoding in a rapid and accurate way. The good reader is also more proficient at guessing at meaning by exploiting prior knowledge and linguistic context.

Grabe (1991:384) points out that scepticism has been levelled at cognitive models such as Rumelhart's, which proposes "massive interactive connections", namely, that "potentially everything can connect with everything". Despite the fact that the role of prior knowledge and inference making in reading comprehension cannot be denied, many researchers feel that the "schema theory" cannot be explicitly defined and, as such, is not strongly supported by current research. In spite of these criticisms, these massively interactive models have remained influential.

The concept *interactive approach* has taken on a *dual meaning*. On the one hand, the interactive approach recognises that reading involves the interaction of component processes. On the other hand, it is a multilevel interaction process which includes the interaction which takes place between the reader and the text.

Several authors posit that reading is a *multilevel interactive process* (Rumelhart 1977; Adams 1980; Spiro *et al.* 1980; Stanovich 1980; Garner 1987). To explain the interactive process,

Spiro *et al.* (1980:3) state that:

... the text must be analyzed at various levels, with units of analysis going from letter to the text as a whole. In addition to processing the explicit features of text, the reader must bring considerable pre-existing knowledge to the reading comprehension process. The interaction of text-based and knowledge-based processes and of levels within each is essential to reading comprehension.

Cohen (1990:75) explains that according to the interactive model, readers are seen to use their previous knowledge of form such as the alphabet or words in context, to identify the visual cues and their expectations about the conceptual structure of the text, viz: culture or subject matters, in order to perform a personal reconstruction of the meaning of the text. Reading has also been viewed as a dynamic interaction which takes place between the reader and the text (Cohen 1990:75; Grabe 1991:383). Similarly, Garner (1987:13) maintains that reading comprehension is "an interaction of reader expectations with textual information". The basic idea is that the reader's reconstruction of the text information is based in part on the knowledge drawn from the text and in part on the prior knowledge available to the reader in order to create meaning (Cohen 1990:75; Grabe 1991:383). This is confirmed by Silberstein (1987:31), who points out that the reading text is considered easier if it corresponds with the reader's schemata or pre-existing knowledge of language and the world. This is on account of the fact that whilst reading the reader's expectations are based on his prior knowledge of the text and the world.

According to Cohen (1990:75), the activities of the reader include "retaining newly acquired knowledge, accessing recorded and stored knowledge, and attending to the writer's clues as to the meaning intended for the text". In a sense, the reader is seen as a "moving target" who is not the same after reading as he was at the outset. A similar notion is put forward by Garner (1987:13) who explains that "[w]hat is understood and remembered from text is both more and less than the original input, for the reader draws inferences, embellishes ideas, and ignores details that are perceived to be of little textual or contextual importance". Similarly, Spiro *et al.* (1980:3) feel that because the meaning of text is only partially determined by the text itself, reading must be an inferential, constructive process, characterized by the formation and testing of hypotheses with respect to what the text is "about". This process is similar in many ways to problem-solving.

Reading is also viewed as a strategic, flexible process that is adapted to the purposes of reading at a given time and is monitored to determine whether the purposes are being met (Spiro *et al.* 1980; McWhorter 1992). This view of the interactive approach emphasizes two approaches to understanding the reading process i.e. the text-based approach with its emphasis on what the writer intended to write and how it was actually written, and the reader-based approach with its focus on what the reader brings to and gets out of the text, which includes bottom-up/top-down interaction.

Another way that reading has been depicted is as the perception of current text in the perspective of text already read and prediction of the text still to come. The reader's success in reading depends on how alert he is, how motivated he is to read a specific text, how good the fit is between what he is reading at a current moment and what he has already read, his familiarity with the topic, and the complexity of the material (Cohen 1990:75).

2.1.4.5.1 The interaction of component skills in reading

McLain (1991:169) points out that the view of reading as a collection of isolated skills has shifted to viewing reading as a total process of interrelated skills and strategies. The interaction of the following cognitive skills are thought to lead to fluent reading comprehension and are important in English L2 reading.

a) Automatic recognition skills

Automaticity of letter and word recognition occurs when the L2 reader is unaware of the reading process and does not consciously control the process. According to Grabe (1991:380), "automatic lexical access is a necessary skill for fluent readers". It is thought that poor readers lack automaticity in lower-level processing.

b) Vocabulary and syntactic knowledge

Fluent readers have a sound knowledge of language structure and an extensive vocabulary. An extensive vocabulary is acquired through reading. Vocabulary knowledge is recognised

as a critical feature of reading ability. The vocabulary of L1 readers is usually larger than that of L2 readers (Grabe 1991:380).

c) Formal discourse structure knowledge (formal schema)

Knowledge of how the text is organised influences the comprehension of text. When compared to less skilled readers, skilled readers make better use of text organization and write better recalls by recognising and employing the same organizational structure as that of the text studied (Grabe 1991).

d) Content and world background knowledge (content schemata)

In both L1 and L2 contexts, prior knowledge of text-related information and cultural knowledge influence reading comprehension (Grabe 1991:381).

e) Synthesis and evaluation skills/strategies

When good readers read a text they not only comprehend it, but evaluate the text information and compare and synthesize it with other sources of information. By means of prediction, good readers are able to anticipate later text development and the author's perspective with regard to the information presented. In this manner, readers evaluate the information and decide if the information is useful (Grabe 1991:381).

f) Metacognitive knowledge and skills monitoring

Metacognitive knowledge and skills monitoring are two important components of fluent reading (Grabe 1991). Baker & Brown (1984:352) define metacognitive knowledge as "knowledge about cognition and [self] regulation of cognition". Readers' knowledge about cognition might include knowledge about language. This implies recognizing patterns of structure and organization, employing strategies to achieve specific goals such as remembering information for study purposes and reading for meaning (comprehension). With respect to reading, this would include recognising important information in a text, adjusting

reading rate, using context to sort out a misunderstood segment, skimming portions of a text, previewing headings, using search strategies for finding specific information such as the main or supporting ideas, taking notes, underlining and summarising information. The monitoring of cognition refers to recognising problems with information in the reading text and employing self-regulatory strategies to solve problems experienced whilst reading (Baker & Brown 1984; Grabe 1991:382).

According to Cohen (1990:75), identification skills include the recognition of words and phrases and the grammatical signals required for the simple decoding of text (i.e. bottom-up processing). Interpretive skills relate to the higher-level cognitive skills (i.e. top-down processing) that allow for the meaningful reconstruction of a text as a unified, coherent structure of meaning. Reading thus involves both an array of lower-level rapid, automatic, identification skills and an array of higher-level comprehension/interpretation skills (Grabe 1991:383).

2.1.4.6 Eye movement research

With the advent of new on-line methods of studying the reading process, such as tracking eye-movement, researchers have evidence that reading is a rapid, precise and highly automated process (Garner 1987:3; Grabe 1991:386; 390). To describe the automatic process involved in reading, Adams (1980:12) says that:

written information ... [flows] almost automatically from sensation to meaning. As the letters of the text are identified, they simultaneously prime or set up expectations about the identities of the word to which they belong. As the words are identified, they prime the most probable syntactic and semantic structures.

Garner (1987:3) states that the good reader is better than the poor reader at decoding in an attention-free way. This is because the proficient reader makes "optimal use of the information on the page, the redundancy of the language, and the contextual environment with minimal effort" (Adams 1980:12). In addition, eye-movement studies have shown that words are identified before higher-level (non-automatic) context information can be employed to influence lexical access. They have also revealed that in normal fluent reading the eye

moves to the next longer word instead of sampling words selectively (Grabe 1991:385). The author (1991:391) claims that less proficient readers are not yet efficient in bottom-up processing and are thus word-bound. No amount of guessing by poor L2 students will overcome this deficiency and lead to automatic word recognition. Research findings in Grabe (1991:385-386) provides quite compelling evidence of the rapid and precise nature of eye movements in reading. This evidence refutes Goodman and Smith's view of a few decades ago that reading is predominantly an active psycholinguistic guessing game.

2.1.4.7 Present trends in L2 reading and listening

Present L2 trends reveal that L2 reading and listening for comprehension involves language skills, deriving meaning, interaction between bottom-up and top-down processing, interaction between the reader and the text and as well as interaction between component skills (i.e. word recognition, vocabulary, formal and content schemata (i.e. linguistic, cultural and world background knowledge), synthesis and evaluation skills/strategies as well as metacognitive knowledge and skills monitoring). Furthermore, affective factors such as the reader's or listener's attitudes, ideas, beliefs (Carrell & Eisterhold 1983:556), experience, feelings, values and motivation (Kaplan 1990:80) towards the reading or listening task also influence the way in which he/she approaches the reading or listening text.

2.1.5 The concept *comprehension* in the study and lecture situation

According to Baker & Brown (1984:355), the two types of comprehension involved in learning/studying are reading and listening for meaning. It is relevant to note that reading and learning are interrelated processes (McWhorter 1992:79). Anderson (1980:483) asserts that "studying text materials is nominally different from other forms of reading in that it is strongly criterion orientated. When studying, the L2 student processes text with the expectation of learning something specific from it".

Listening to a lecture is different from conventional listening situations in everyday spoken communication. Although a lecture situation is a form of oral discourse, the language used has features more typical of written language than oral language. This calls for CALP rather

than BICS. For instance, in a lecture situation the student is expected to take notes, understand, remember and apply facts and ideas for future use, such as during tests and exams (Williams 1984; Oxford 1993; McWhorter 1995). The concept listening will be defined in greater detail later in this chapter.

2.1.5.1 Reading for meaning (comprehension)

Reading for meaning involves understanding words, phrases and sentences (McWhorter 1995). Poor readers do not realize that they have to make sense of a text. Research undertaken reveals that such readers concentrate on reading as a decoding process (e.g. saying the words) instead of as a "meaning-getting process" (Baker & Brown 1984:358).

2.1.5.2 Reading for learning

Reading for studying utilises all the activities of reading for meaning such as decoding and comprehending and more (Brown, Armbruster & Baker 1986:63). The learner must also take "purposive action to ensure that the material is not only comprehensible but also memorable" (Baker & Brown 1984:367). It is important for the reader to understand the author's intention and the main idea as this enhances motivation and the development of critical reading, writing and thinking (Bruce 1980:380).

According to Baker & Brown (1984:368), few traditional literature studies were concerned with what the student generally does during reading in order to facilitate learning from a text. Instead, researchers such as Robinson (1941 in Baker & Brown 1984:368; McWhorter 1995:256) were interested in what activities readers engage in before and after reading.

Robinson (1941 in Baker & Brown 1984:368; McWhorter 1995:256) proposes that readers should engage in survey (i.e. read the title of the chapter, the introduction and the summary) and questioning (i.e. turn the first heading into a question before reading the text). After reading, the reader should engage in the following activities: recitation (i.e. re-reading the headings and recalling the questions asked), reflection and reviewing the text (i.e. look over the total chapter by rereading the headings). This was called the SQ3R technique (1941 in

Baker & Brown 1984:368; McWhorter 1995:256). In contrast, metacognitive research focuses on what the student does while actually processing the learning material (Baker & Brown 1984:368). To be an efficient student implies engaging in study monitoring (which is like comprehension monitoring) and involves the ability to concentrate on main ideas, to use a strategy to aid learning and to evaluate the effectiveness of the learning strategy used. In order to make the best of the study time available, the student needs to know which material is important, as well as which material has not been mastered in order to perform adequately in a forthcoming test.

Researchers have identified four important study activities employed by tertiary students, viz: concentrating on the main idea, becoming aware of the logical structure of the text and task characteristics, using self-interrogation during studying, and summarising the material the student is reading. These four activities will be briefly discussed:

2.1.5.2.1 Concentrating on the main idea

McWhorter (1992) and Landman (1987) assert that the main idea expresses what the author of any type of written material wants to communicate about a topic or idea. McWhorter (1995:113) says that the sentence which expresses the main idea is called the topic sentence. The present study emphasises the topic sentence approach (cf. § 4.6.2.1, Chapter 4). A problem with the topic sentence approach may be that some paragraphs do not necessarily have an explicit topic sentence. In such cases the main idea must be inferred from the paragraph. According to Baker & Brown (1984:368), it is important for students to be aware of the main ideas of a text when studying it. Tarlow (1990:1276-A) advocates that educators should teach main idea strategies in order to strengthen comprehension ability.

Research undertaken in SA indicates that black L2 tertiary students generally have reading comprehension problems (Blacquièrè 1989; Perkins 1991). Tarlow (1990) found a correlation between poor comprehenders and poor ability to identify the appropriate main ideas. Landman's (1987:18) SA study on reading and writing reveals that black students from Soshanguve spent hours of laborious toil in the library with a mass of material but earned lower marks than students who handed in a few pages of neatly set out work where the main

idea could be followed through logically and effortlessly. This might be attributed to the fact that although poor L1 and L2 readers often do have the necessary decoding reading skills, they tend to experience difficulties with certain aspects of reading comprehension such as getting the main idea and inferring meaning which requires reading between the lines. These abilities are necessary for full comprehension and are automatic in the skilled and adult reader (Anderson & Shifrin 1980:345; Bruce 1980:380). According to Bruce (1980:380), these abilities contribute to the motivation and development of critical reading, writing and thinking.

Baker & Brown (1984:369) state that in order to retain the main points the reader must memorize the main ideas conveyed in a text by engaging in active strategies to ensure increased attention to the text that has to be learnt. Tarlow (1990:1276-A) found that in contrast to poor readers, good readers use effective strategies to develop a main idea. Reading for the main idea implies knowing the rules (i.e. cognitive strategy) for selecting the main idea. McWhorter (1995:121) asserts that the main idea might be found in the first, last, middle or first and last sentences of a paragraph. Baker & Brown (1984:369) established that students who underlined or took notes during studying employed these devices to highlight the main ideas and, as a result of this selective attention, increased their recall of central ideas in test situations. Padron & Waxman (1988:147) also found that there is a positive relationship between underlining the main idea and L2 students' reading achievement.

Various studies (Kieras 1982; Padron & Waxman 1988; Womack 1991) have employed 'think aloud' strategies to teach students how to identify main ideas in paragraphs. This has led to equivocal findings. Womack (1991:3180-A) found that there was no significant difference between the experimental and control groups' abilities to identify the main idea in passages when 'think aloud' instruction was used. The experimental teachers who used the 'think aloud' instruction approach were slightly in favour of using this method. A study undertaken by Kieras (1982) reveals that most readers who employ a simple 'think aloud' strategy are able to abstract main ideas from simple technical prose. The results of a study by Padron & Waxman (1988) support Brown, Armbruster & Baker's (1983) conclusion that lower-achieving L2 students employ less sophisticated and inappropriate cognitive reading strategies. Womack (1991:3180-A) concludes that more research is required to ascertain whether 'think aloud' techniques are successful for teaching the main idea.

2.1.5.2.2 Becoming aware of the logical structure of the text and task characteristics

In contrast to better readers, poor comprehenders are not influenced by the structure of the text (Tarlow 1990:1276-A). Both strong and weak students can remember organized text with a logical structure better than they remember disorganized text. However, less able students have little awareness of the text and task characteristics when studying. For instance, poor comprehenders do not realize that more study time is required to understand an imprecise or difficult passage and that they have to justify their answers. These results show that students who are poor readers have inadequate metacognitive knowledge about the text and task variables when compared to better readers. They also reveal that although poor readers do not spontaneously monitor their comprehension and mastery of prose material they are able to do so after relevant instruction in specific skills (Baker & Brown 1984:371). These authors (1984:37) assert that in order to succeed in studying, students require metacognitive knowledge, that is, self-knowledge about themselves as readers, task knowledge (gist versus verbatim recall) and text knowledge (important versus unimportant). (Section 3.1.3 in the following Chapter provides a more detailed explanation of these terms.)

2.1.5.2.3 Using self-interrogation during studying

André & Anderson (1978-1979 in Baker & Brown 1984:372) claim that teaching students a self-questioning technique about the main idea or important points in a text facilitates learning more than would simply reading or rereading texts. A similar notion is expressed by Pardon & Waxman (1988:147), who found that asking questions about parts of the story the reader does not understand enhances students' achievement. Baker & Brown (1984:372) attribute the success of self-questioning to the fact that it incorporates many metacognitive components. These include:

- setting a purpose for studying;
- identifying and underlining important segments of the reading material;
- generating questions which require comprehension of the text in order to be correctly answered; and
- thinking of possible answers to the questions.

In addition, employing a self-questioning strategy whilst studying requires the student to actively monitor the learning activity and to engage in strategic action. Training in effective questioning may also be important in the development of monitoring skills. Students' ability to ask themselves relevant questions whilst reading is essential in monitoring comprehension and studying (Baker & Brown 1984:372).

2.1.5.2.4 Summarising the material the learner is reading

As mentioned earlier, the two main areas of reading involved in tertiary learning are reading for meaning and remembering or studying (Baker & Brown 1984). Reading for meaning means reading for comprehension whereas reading for remembering or studying implies reading (a) for meaning or understanding of the material one is studying and (b) in order to remember or retain the material for examination purposes. Kirkland & Saunders (1991:105) feel that another area of reading comprehension for study purposes, namely, summarising, is essential in an academic setting owing to the frequency with which summary assignments are used as a study aid. In addition, tertiary learning involves listening comprehension in order to take notes during a lecture.

The L2 student can assess his level of comprehension and retention of a text as well as his preparedness for an exam by trying to summarise the material (Baker & Brown 1984; Johns 1985). According to Johns (1985:495), summarisation involves the use of reading skills, identification of main ideas and condensation of text while retaining the focus of the original text. According to Brown & Day (1983) and Garner (1987:52), there are five basic rules which are necessary for summarisation operations. The rules are: deletion of redundancy or trivia, providing superordinates, selecting topic sentences (i.e. identifying the main idea) and inventing topic sentences if they are missing (Brown *et al.* 1983; Baker & Brown 1984; Hare & Borchardt 1984; Garner 1987). According to Baker & Brown (1984:373), these operations are employed "freely by experts when summarising texts". Authors such as Hidi & Anderson (1986) and Stotesbury (1991) emphasize the importance of identifying the controlling idea (i.e. the title or heading of a text) in a summarisation passage. By training L2 students with reading problems to use these cognitive skills for summarisation, students should be able to pick out the essential meaning conveyed in the paragraph or text, and to express this clearly.

Students will be then able to distinguish what is important from what is not, which will in turn, directly facilitate studying.

Research has revealed that many students lack efficient summarisation skills (Brown & Day 1984; Hare & Borchardt 1984; Johns 1985). According to Johns (1985:497), poor readers often experience difficulty with summarising a text. Because black SA L2 tertiary students generally cannot read well, they also tend to experience problems with summarisation (Jardine 1986). In addition, their reliance on rote learning in the past appears to have contributed to their inability to write coherent summaries. Research undertaken by Brown & Day (1983:1) examined L1 college students' ability to use rules (i.e. cognitive strategies) for summarising texts. These authors (1983) discovered that students experience difficulty with combining information across paragraphs and providing a synopsis in their own words. Johns (1985:495) found that L1 students also tend to omit several main ideas from their summaries. Garner's (1987) study shows that college learners are aware that main ideas from a descriptive passage should be included in a summary of the passage. Moreover, ninety three percent of the college students in the experiment included most of the important ideas in their summaries.

In another study, Brown & Day (1984:373) looked at the ability of college students to employ the rules while summarising. The results showed that college students were adept at employing superordination and identifying topic sentences. However, undergraduate college students experienced difficulty with the rule on the invention of topic sentence and were only effective at using the deletion rules.

Hare & Borchardt (1984:62) employed a direct instruction method to teach summarisation skills. These authors based their research on Brown & Day's (1983) study but adapted it to include an extra summarisation rule and one rewriting rule. The summarisation rules were given in the form of instructions and were displayed on a single sheet. Hare & Borchardt's (1984:66) seven operations in writing a summary are:

- *Make sure you understand the text.* Ask yourself: "What was this text about?"
Try to say the general theme to yourself.

- *Look back.* Reread the text to make sure you got the theme right. Also read to make sure you really understand what the important parts of the texts are.
- *Rethink.* Reread the paragraph. Try to say the theme of the paragraph to yourself. Is the theme a topic sentence? Have you underlined it? Or is the topic sentence missing? If yes, have you written one in the margin?
- *Check and double-check.* Did you leave in any lists? Did you repeat yourself? Did you skip anything? Is all the important information in the summary?
- *Collapse lists.* If you see a list of things, try to think of a word or phrase name for the whole list. (The term *collapse lists* is similar to Brown & Day's (1983) 'superordination' rules.)
- *Use a topic sentence.* Often authors write a sentence that summarises a whole paragraph. If the author gives you one, use it, if you don't see a topic sentence, make up one of your own. (The *selection and invention rules* are similar to Brown & Day's (1983) 'use topic sentences' rule.)
- *Get rid of unnecessary detail* (substituted for Brown & Day's (1983) term *delete trivia*.) Some text information can be repeated in a passage. Since summaries are meant to be short, delete unimportant, repetitive or trivial information.
- *Collapse paragraphs.* Paragraphs are often related to one another. Some paragraphs are more necessary than other paragraphs. Decide which paragraphs should be kept or eliminated, and which might be joined together.
- *Polish the summary.* If your summary sounds unnatural, adjustments may be made. These include paraphrasing or inserting connecting words such as "and" or "because". Also insert introductory or closing statements if required. (Hare & Borchardt 1984:66)

The findings of the Hare & Borchardt (1984:62) study show that there were no significant differences in summarisation process and product between two groups of students who had received instruction (i.e. deductive versus inductive method) in summarisation technique. In contrast, Day (1980 in Baker & Brown 1984:374) trained junior college students of varying levels of reading sophistication to apply five rules (i.e. deleting redundancy and trivia, providing superordinates, selecting topic sentences and inventing topic sentences if they are missing) and to underline the topic sentence. In addition, the students had to check that they were using the rules appropriately. The results indicated a dramatic improvement in students'

ability to summarise passages.

The studies by Hare & Borchardt (1984) and Brown & Day (1983) reveal that students experience difficulty in identifying implicit main ideas. In both studies, students did not select the appropriate number of main idea points. Furthermore, Hare & Borchardt (1984) found that students often misidentified initial or final position sentences as topic sentences. The authors (1984) observed that other factors such as the redundancy of an idea in a paragraph or the number of times an idea was repeated might have been responsible for drawing students' attention to an explicit topic sentence.

Day (1980 in Baker & Brown 1984) concludes that college students can be trained to employ the rules of summarisation successfully. Baker & Brown (1984:374) assert that the rules of summarisation facilitate studying directly as it is easier to study from a summary than the original text. Hare & Borchardt (1984) feel that although there was room for improvement in their study, some progress had been made with training in the use of the summarisation rule, as students subsequently used the rules consistently. As mentioned in Chapter 1, like many L2 students, the students in the present study experience difficulty with reading comprehension. Furthermore, they also appear to have poorly developed metacognitive skills (e.g. metacognitive awareness, self-regulation and compensatory strategies) which are necessary for reading for meaning and studying (e.g. identifying the main idea and summarisation). This key issue will be discussed in more detail in Chapter 3.

2.1.6 The difference between good and poor readers

Although the term *poor readers* may refer to poor decoding, in this dissertation the author takes a similar position to Pretorius (1996:54) who used the terms *good and poor readers* as synonyms for *good and poor comprehenders*, regardless of their fluency in oral reading. Good readers in contrast to poor readers are:

- better at guessing meaning because they use information from their background knowledge as well as information from the printed page (Garner 1987; Grabe 1991);
- flexible and use various strategies such as skimming or anticipation to read efficiently;

- generally more successful in academic contexts (Pretorius 1996:44). This is verified by L2 research in SA which revealed that black students who have reading problems experience academic problems at tertiary level (Jardine 1986; Blacquièrè 1989; Perkins 1991);
- able to maintain the flow of information at a sufficient rate to make connections and inferences vital to comprehension (Grabe 1991:378; Pretorius 1996:45);
- able to decode in a rapid, accurate and relatively attention-free manner (Garner 1987:3). This is because poor readers lack automaticity at lower level processing (Grabe 1991:385); and
- able to employ strategies such as monitoring, checking and self-testing (Brown 1980:465). Poor readers however, have problems with comprehension monitoring and fix-up strategies (Baker & Brown 1984:362).

In terms of understanding a message, when compared to poor readers, good readers

- are apt to be good listeners (Pretorius 1996:43); and
- expect to understand what they read and are able to evaluate text information and compare it with other sources of knowledge (Grabe 1991).

In addition, good readers have a purpose for reading, such as learning. Reading for a purpose provides motivation. Poor readers, in contrast to good readers, have problems with

- automatic word recognition, as they are not efficient in bottom-up processing (Grabe 1991:391);
- the simultaneous integration of many top-down processes during reading (Pretorius 1996:39); and
- recognising the main idea (Pretorius 1996).

The distinction between good and poor readers is applicable to both L1 and L2 readers in English. The present study focuses on teaching L2 students strategies to try and improve their reading comprehension ability in the study and lecture situations. More specifically, it concentrates on reading for the main idea and for summarisation. It also stresses the

importance of self-questioning during reading and summarisation (cf. Chapter 4).

2.2 LISTENING COMPREHENSION

Listening is "a complex, problem-solving skill" (Wipf 1984 in Oxford 1993:206). Listening is defined as "the process of receiving, attending to, and assigning meaning to aural stimuli" (Wolvin & Coakley 1985 in Oxford 1993:205). The linear, sequential nature of listening implies that one cannot go back over the discourse as one can in written text. The medium is therefore more ephemeral.

Listening is a more complicated process than simply hearing words (McWhorter 1995:268). Oxford (1993:206) claims that listening is more than mere perception of sounds, although perception is the foundation. It includes comprehension of meaning-bearing words, phrases, clauses, sentences and connected discourse. Lerner (1985:30) maintains that listening demands that the person selects appropriate meanings and organizes ideas according to their relationships. It also requires evaluation, acceptance or rejection, internalization and, at times, appreciation of the ideas expressed. In contrast to listening, hearing is a physiological process which does not require interpretation (Lerner 1985:330).

Although listening normally occurs together with speaking, in a lecture situation, listening seems to be an isolated skill, not interacting with other language skills. However, listeners frequently have support from the written word such as lecture handouts to help them work out the meaning of the spoken word (Oxford 1993:206). As students frequently experience difficulty with listening in their own language, it is to be expected that they will experience even more difficulty in a second language.

2.2.1 A review of research on listening comprehension

Research has indicated that listening comprehension is important in both L1 and L2 learning. A brief synopsis of the various research topics pertaining to listening comprehension with specific reference to L2 listening follows.

2.2.1.1 L2 listening is a bottom-up/top-down process

Both Oxford (1993:207) and Richards *et al.* (1992:216) assert that listening involves both bottom-up and top-down processing. Oxford (1993:207) maintains that L2 listening involves bottom-up processing as meaning is derived from perception or comprehension of the sum of all sounds, syllables, words and phrases; and top-down processing as meaning is inferred from contextual clues and background knowledge. A similar notion is expressed by McWhorter (1995:268), who points out that listening comprehension is a process in which students have to recognise words, and understand, connect and evaluate ideas. Cohen (1990:46) asserts that processing in listening entails perceiving the sounds and determining the elements of meaning that are conveyed by means of words and phrases as well as through the stress the words receive and the intonation pattern of the utterance as a whole.

Cohen (1990:47) claims that learners cannot "catch all the data as they go by in an utterance". Instead, listening comprehension involves a selective process as all the features are not processed by the learner. Good listeners employ inference. They use their world knowledge or content schemata to interpret what is most likely being said. Byrnes (1984 in Oxford 1993:207) maintains that in order to comprehend meaning the L2 listener links what he hears to his internal schemata (i.e. his mental frameworks in long-term memory). Richards *et al.* (1992:216) are of the opinion that the listening comprehension process focuses on the role of individual linguistic units as well as the role of the listener's expectations, the situation and context, background knowledge and the topic. In other words, the topic and learners' prior knowledge about the possible utterances for the topic and the context of the discourse all play a role in understanding the meaning.

A study by O'Malley *et al.* (1989 in Rubin 1994:211) shows that proficient listeners appear to be listening for larger chunks and shift their attention to individual words only when comprehension breaks down. This implies that in order for comprehension to occur at all, there has to be interaction between bottom-up and top-down process. A communication breakdown occurs when interaction breaks down.

2.2.1.2 Simplification of L2 input

The concept *simplification of listening input* could entail slowing down the rate of delivery

during a lecture, using exaggerated intonation or reducing the content. According to Rubin (1994:200) there is conflicting evidence about how speech rate affects L2 comprehension. The research findings of King & Behnke (1989 in Rubin 1994:200) show that L2 students experienced difficulty with comprehensive listening, which required understanding a message and remembering it for future use (i.e. long-term listening) when the speech rate of the lecturer seemed very fast. In contrast, students did not appear to experience severe problems with interpretive (i.e. detecting inferred meaning) and short-term listening (i.e. receiving, processing and recalling limited amounts of information over short time periods) when the lecturer's speech rate increased.

Arguments in favour of simplifying L2 listening input initially are that it results in greater ease of comprehension and greater self-confidence in the classroom environment. However, Oxford (1993:208) is not in favour of listening input initially being simplified for L2 learners, for the following reasons:

- possible loss of self-esteem in language settings outside the classroom;
- it might create an unrealistic expectation that all L2 input should be simple and easy to understand; and
- it might result in frustration when L2 students cannot comprehend authentic, normal speech.

It would thus appear that simplified listening input is inadequate as a long-term L2 instructional strategy.

2.2.1.3 Attention in L2 listening comprehension

Inattention during lectures causes significant problems in L2 listening. Research undertaken by Cohen (1990:42) found that 50% of L2 students do not attend to instructional content at a level that will ensure that learning takes place. The researcher (1990) also found that most students just repeat the material to themselves without performing higher order functions on the material (e.g. comparing it to material already learnt). Reasons mooted why so many L2 learners do not attend to instructional content include:

- Learners have a limited resource capacity. For this reason, they have to set priorities regarding which stimuli should be completely analyzed and which require superficial analysis (Cohen 1990:43). Often L2 students are so intent just on decoding speech that they don't attend to meaning (Cohen 1990:43). This oral form of word-boundedness might be compared to the written form of word-bound reading (i.e. poor readers who have difficulty decoding are so intent on word-for-word decoding that they do not have resources to allocate to comprehending processes).
- Sometimes L2 students simply tune out. The findings of Cohen's (1990:45) study reveal that students seemed to have a "pecking order" as to whom they listened to. For instance, they tuned out completely if they felt a student was too talkative, and tuned out partially if their fellow student had a poor accent. Research undertaken by means of a questionnaire by Cohen (1990:42) reveals that learners' interest in the subject matter also influenced whether they paid attention or not. These findings suggest that learners often automatically deselect some of the input according to largely predetermined criteria.
- Ineffective listeners often stop listening when they hear an unknown word or phrase in a listening text. They also fail to realize when they are inattentive (Rubin 1994:208).

Attention can be improved by means of "active intention and action during the listening process" (Oxford 1993:208). In other words, the lecturer should set long-term goals and short-term objectives for L2 listening, in order to enable students to make meaningful mental associations whilst listening. In addition, students should be assisted to identify the purpose of listening in a given situation (cf. § 2.2.1.4). The lecturer might also provide students with cues such as key words or tell them to listen to the overall theme without worrying about the details during the listening task (Cohen 1990:47; Oxford 1993:208). It is also helpful to outline the structure of the talk or lecture at the beginning so that listeners know what to expect.

2.2.1.4 The purpose of L2 listening

The purpose of listening is important as it defines "how the learner must approach the text and suggest[s] what must be derived from the text" (Lund 1990:109). Research shows that

different listening tasks, such as identifying the main idea, require different types of listening behaviours from students. In this instance, the purpose would be to understand the overall message not details (Oxford 1993:208). Below are six purposes of listening which are important in L2 learning and instruction. They are followed by examples of listening behaviours applicable to them:

- *Identification.* Listeners focus on some aspect of the code itself, instead of on the content of the message. Aspects could include word recognition and discrimination between tenses, phonemic pairs or intonation patterns.
- *Orientation.* This is essentially "tuning in" or preparing to process the message. It may involve determining essential facts about the discourse in an oral lecture.
- *Main idea comprehension.* Listening for the main idea is a global type of listening that focuses on broader concepts and not on details and examples (Oxford 1993:208). In addition, it involves actual understanding of the message and recognition of vocabulary (Williams 1984; Lund 1990).
- *Detail comprehension.* This involves listening for specific information and requires learners to pay selective attention. This function can be performed independently of the main idea function, such as when students know in advance what information they are listening for. Sometimes students have to find details to support the main idea (Williams 1984; Lund 1990; Oxford 1993).
- *Full comprehension.* This involves listening to the main ideas and details - in other words, listening to the whole message. Listeners who can perform this function usually have a higher proficiency than students who are limited to comprehending either main ideas or facts.
- *Replication.* Listeners have to reproduce the message in either the same or a different modality such as oral repetition, dictation or transcription.

As can be seen, different listening tasks call upon different listening behaviours (Oxford 1993). The listening purpose gives both the lecturer and students a sense of clarity and direction in listening activities (Lund 1990:109). Moreover, if L2 listeners know what type of listening is expected of them at a given time, they can select the appropriate listening behaviours (Oxford 1993:209). This implies that all six listening behaviours are not necessarily present in every listening situation.

2.2.1.5 L2 listener response

Rubin's (1994:211) review of L2 listening comprehension indicates that the listening process is complex and difficult to observe because measures are mostly indirect. Lund (1990:109) states that "what the listener does to demonstrate successful listening" is of pedagogic importance. After reviewing research, Lund (1991) observes that the following are examples of response behaviours or products of observable behaviours:

- *Choosing*. The listener selects a story title from alternatives given.
- *Transferring*. The listener receives information in one form and transfers it into another form. The listener may listen to the main idea and underline it on a worksheet.
- *Answering*. The listener answers questions about the text. Alternatively, he responds to an information requirement. e.g. What is the main idea?
- *Condensing*. The message is reduced. Examples include: (a) outlining lecture notes after a lecture by organizing the notes according to main ideas and supporting ideas, (b) oral or written summary and (c) using techniques such as indentation, heading and subheadings whilst note taking (Williams 1984; Lund 1990; McWhorter 1995).
- *Extending*. The listener provides text that goes beyond what is given. Examples are: providing the ending or changing the ending of a story.
- *Duplicating*. The exact message is replicated in another modality, for example by means of dictation or oral repetition.
- *Modelling*. A given text is used as a model for imitation. For instance, modelling the rules of reading for the main idea and applying the model to a reading or listening text. Students then repeat the rules and finally write down the main idea.
- *Conversing*. The listener is actively involved in a face-to-face conversation (Lund 1990:111).

As demonstrated, the type of response is frequently related to or suggested by the purpose of listening (Lund 1990:109). For instance, in the present study the listening purpose initially is to identify a main idea and consequently requires that the student responds by listening for the overall meaning and not to the detail of supporting ideas.

2.2.1.6 Memory in L2 comprehension

L2 students experience difficulty with retention and memorization in longer passages of L2 discourse and consequently with the flow of the meaning. L2 students who remember what they have heard perform better academically. For this reason, it is important to teach students strategies such as simple mnemonics (e.g. rhyming and personal associations) to help them to remember what was said. In addition, meaningful listening tasks using ordinary, not simplified, L2 speed should be employed (Oxford 1993:209).

2.2.1.7 Monitoring in L2 comprehension

L2 listening requires that students should monitor their own comprehension. This includes guessing the meaning from contextual clues, predicting what comes next, assessing the accuracy of their predictions and making adjustments should their predictions be incorrect (Oxford 1993:209). The findings of Henner-Stanchina's study (1982 in Oxford & Crookall 1989:412; Oxford 1993:209) show that L2 learners' comprehension-monitoring improved after they had been taught listening strategies.

2.2.1.8 Affective aspects of L2 listening

Affective aspects of listening include students' attitudes, beliefs and emotions about their listening ability. Students may have positive or negative attitudes or beliefs which influence the way in which they handle L2 listening activities (Oxford 1993:209). Lund (1990) asserts that if L2 students are motivated, it positively influences the way in which they listen and the skills or strategies that they use. If L2 students have "negative listening self-concepts", they might feel anxious and experience failure because they expect they will not be able to cope with a L2 listening task (Joiner 1986 in Oxford 1993:209). This often occurs because students set unrealistic goals such as thinking they have to understand every word they hear. Research undertaken by Henner-Stanchina (1986 in Oxford 1993:209) reveals that few L2 listeners are aware that they must extract meaning and mentally integrate new knowledge with what is already known. Instead L2 students believe that they must define every word and apply every grammar rule to the L2, even though they do not have to do so in order to

understand their home language.

2.2.1.9 Listening as a predictor of L2 proficiency

Freyton (1991 in Oxford 1993:207) conducted a study on listening as a predictor of L2 proficiency. This study indicates that listening skills contribute more significantly to L2 proficiency than other variables such as the gender of the learner, the length of previous language experience, the L2 language being learned and the learner's last contact with the language. According to Williams (1984:203), there is a need to upgrade listening and note-taking skills in L2 teaching.

2.2.2 Listening comprehension and note-taking in the lecture situation

Tertiary learning involves listening comprehension (i.e. listening for meaning) in order to take notes during a lecture (Baker & Brown 1984). Taking notes from lectures requires that the student understands what the lecturer is saying and can distinguish between important and less important information (Adamson 1990:70). Furthermore, it involves that the student organizes or arranges his lecture notes in such a way that he can easily see how the lecture is organized, which ideas are important and to what he should pay attention to whilst studying (McWhorter 1995:271-2). Research has found that black SA L2 tertiary students find it difficult to make adequate notes in lectures and often misinterpret what they hear (Blacquièrè 1989:77).

McWhorter (1995:267) points out that taking good lecture notes depends on sharpened listening skills. This is because listening is an intellectual activity involving the processing and interpretation of incoming information. For this reason, listening must be intentional, purposeful and deliberate. In addition, the student must plan to listen, have a purpose for listening and focus his attention. These activities enable the student to take a good set of notes and to understand, remember and apply facts and ideas in order to study effectively for tests and exams (Williams 1984; Oxford 1993; McWhorter 1995).

Two important listening activities used by tertiary students are: listening for the main idea

and listening for supporting ideas. These two activities will now be briefly discussed:

2.2.2.1 Listening for main ideas

Learners' short term memories are extremely limited in span and capacity, and if they concentrate on recording and remembering separate, unconnected facts, they will be unsuccessful learners (McWhorter 1995:268). For this reason, it is important to listen to main ideas in lecture situations. Listening for the main idea involves listening for general concepts and not concentrating on specific details and examples (Oxford 1993:208; McWhorter 1995:268). Understanding the main idea is dependent on both recognition of vocabulary and understanding the meaning of the discourse (Williams 1984; Lund 1990). Oxford & Crookall (1989:412) cite Henner Stanchina's study (1982) in which L2 learners' listening comprehension improved after being taught a strategy for listening for the main idea.

2.2.2.2 Listening for supporting ideas

This involves listening for details and examples to support the main idea (Williams 1984; Lund 1990; Oxford 1993). It requires that students pay selective attention and filter out other information. Sometimes this function is performed independently of the main idea function, such as when students know in advance what information they are listening for. A study undertaken by Henner-Stanchina (1982 in Oxford & Crookall 1989:412; Oxford 1993:209) reveals that the listening comprehension of L2 students improved after they were trained how to listen for specific detail.

2.2.3 The relationship between reading and listening comprehension

Three different viewpoints exist on the relationship between reading and listening comprehension. The unitary and dual models of comprehension are two traditional positions. Both these models recognise that receptive language processing comprises decoding and comprehension as well as prior knowledge. They both also agree that decoding in reading and listening are different. The popular unitary view advocates that one comprehension

process functions for both modalities (i.e. reading and listening). The dual model proposes that there are differences and similarities between reading and listening. The third view, the flexible model, proposes that the comprehension processes are similar but the strategies for their application may vary considerably according to the modality (Lund 1991:196).

Lund (1991:197) undertook a study to compare L2 listening and reading comprehension amongst tertiary students. The findings of Lund's (1991) experiment indicate that L2 students recalled more main ideas in listening tasks than in reading tasks. According to the researcher (1991:201), this occurred because the oral text must be perceived as it is uttered. The listener is also unable to control the speech rate and is thus compelled to comprehend whilst new material is being perceived. The researcher (1991) also found that most listeners tried to construct context to organise what they were able to perceive and decode. The L2 students in Lund's (1991) study, recalled more details in reading tasks than in comparable listening tasks. Lund (1991:201) found that readers revealed "evidence of the same schema-based processing" as listeners. Readers managed to decode more words than listeners. One possible reason for this is that readers are able to pause over new words whereas the listener who pays attention to a single word may miss the consecutive parts of the message. Another reason is that the reader can also look in the text for contextual cues that the listener might miss. However, despite these differences between reading and listening, the general processes appear to be the same. This view is substantiated by Stothard (1994:219) who cites Kintsch & Kozminsky's (1977) study which showed that "the processes involved in understanding written text are analogous to those employed during listening comprehension". Lund (1991:201) remarks that in his study, proficient listeners differed from less proficient listeners "in the same way that readers differed" but unfortunately the author (1991) does not elaborate on this. Evidence from Lund's (1991:201) research thus supports a flexible model of comprehension which proposes that the reading and listening processes are the same. This model also takes into consideration strategic differences in the use of these processes.

Stothard (1994:220) and Jardine (1986:61) also agree that there are some differences in the processing of acoustic and printed input. For instance, skimming a passage to identify the main idea might be a good reading technique, but during listening the complete text is not available for examination (Lund 1991:196). With regard to black L2 students, Jardine

(1986:61) asserts that during reading the student can pause, use a dictionary or re-read for contextual implications but when listening, unless the L2 student has recourse to taped recordings, these opportunities do not exist.

Various authors (Baker & Brown 1984:340; Jardine 1986; Stothard 1994; McWhorter 1995) are of the opinion that reading and listening are similar processes. Stothard (1994:220) claims that except for the modality of input, listening is a process that is similar to reading. This is because both reading and listening are comprehension processes in which the student grasps ideas, evaluates their importance and connects them to other ideas. All the skills that are important in reading comprehension are also applicable to listening comprehension. These include identifying the main idea and assessing the importance and connection of details in relation to the main idea (McWhorter 1995:268).

Research suggests that students with reading problems also have listening problems. In other words, comprehension of language, in whatever modality or medium, may be a higher order processing problem that manifests itself in both reading and listening. Stothard (1994:220) found that poor comprehenders reveal "equivalent deficits on reading and listening comprehension tasks, indicating a general language comprehension deficit". This view is substantiated by Jardine (1986:60) who is of the opinion that reading for meaning is linked to listening for meaning. More specifically, the author (1986:61) attributes black L2 tertiary students' learning problems to both poor reading and poor listening skills. To conclude, the writer of this dissertation takes a common position with Pretorius (1996:44) who asserts that "comprehension is dependent on a set of cognitive mechanisms that are common to both reading and listening comprehension".

2.2.4 The types of problems of poor listening comprehenders

As discussed above, L2 students' listening comprehension problems may be related to a general comprehension problem which also manifests itself in reading. Students' understanding of their lecturers' verbal delivery is critical to academic success (Olsen & Huckin 1990). As previously mentioned, L2 learners are at a linguistic disadvantage in an L1 English-speaking lecture environment (Dunkel *et al.* 1989:547). External factors such

as unfamiliar accents and the fast pace of the lecture frequently contribute to L2 students' listening comprehension problems (Williams 1984:203; King & Behnke 1989 in Rubin 1994:200). Olsen & Huckin (1990:33) state that many advanced L2 students not only experience problems with listening comprehension and note-taking but also fail to understand the lecturer's main points or logical arguments.

Lund (1990) points out that affective factors such as "negative listening self-concepts", lack of motivation, unrealistic goals and feelings of failure and anxiety all contribute to L2 students' experiencing feelings that they cannot cope with a L2 listening task. Black SA L2 tertiary students also find it difficult to make adequate notes in lectures and often misinterpret what they hear (Blacquièrè 1989:77). These students' problems during lectures have been attributed to their inability to read fluently and lack of effective listening skills (Jardine 1986:91). McWhorter (1995:269) maintains that understanding a lecture and taking notes is easier once the student becomes familiar with the main topic of the lecture and is aware of important supporting ideas. The paradox of learning is that in order to understand something the learner must already know it, yet the aim of lectures is to familiarize students with new topics.

Baker & Brown (1984:361) are of the opinion that shortcomings in listening comprehension may be attributed to the following reasons:

- Students often fail to interact with the message source (the speaker), request clarification or seek additional information when their understanding is poor.
- Students are unable to monitor their own understanding effectively.

L2 students' listening problems have also been attributed to a lack of attention. Malley *et al.* (1989 in Rubin 1994:207) assert that proficient L2 listeners appear to be aware when they are no longer paying attention and make an effort to redirect their attention. In contrast, less proficient L2 students have problems with paying attention whilst listening.

As stated previously (cf. § 1.1.3.3), students with poor listening skills often have poor note-taking skills. Several authors advocate training in the area of academic listening and note-

taking (Mendelsohn & Klein 1974; Otto 1979; Lund 1990; Oxford 1993). Williams (1984:203) suggests that it is essential to upgrade L2 listening and note-taking skills at tertiary level. According to McWhorter (1995:268), the following activities should enable students to improve their listening abilities during a lecture:

- focus attention on the content in order to comprehend the meaning during the oral delivery of the lecture. Ignore the personal style and characteristics of the lecturer which might be annoying or charming;
- listen carefully to the lecturer's opening comments (e.g. Is the lecturer presenting facts or demonstrating a trend or pattern?);
- attempt to understand the lecturer's purpose (e.g. Is the lecturer linking the content to the previous lecture?);
- focus on ideas not facts (e.g. listen for the main idea as it is easy to forget if one concentrates on facts); and
- practise identifying the controlling and main idea by providing a title for the lecture after the lecture (Williams 1984; Lund 1990; Oxford 1993; McWhorter 1995).

Lund (1991:202) recommends training in listening skills whilst simultaneously providing feedback in order to make students aware of the nature of listening and how they can become more effective listeners. More specifically, Lund (1990:107) stresses that in order to prepare more proficient L2 listeners, teachers should ask the following: "What is the L2 listener in the learning situation listening for?" and "How is the listener approaching the text?" Baker & Brown (1984:378) point out that students should be given information regarding the text and procedure so as to foster effective comprehension monitoring. In addition to the specific reading/listening problems that L2 learners have, they also have more general learning problems (cf. § 1.1.2.3 in Chapter 1).

The present study stresses the importance of teaching students to pay attention, to be aware of the purpose of listening (e.g. to identify the main idea) and to monitor their comprehension whilst note-taking in the lecture situation. This matter will be taken up again in more detail in Chapter 4.

2.3 LEARNING

Brown (1987:6) defines *learning* as the "acquiring or getting of knowledge of a subject or a skill by study, experience or instruction". Pollard & Tann (1993:103) state that learning is a "process by which skills, attitudes, knowledge and concepts are acquired, understood, applied and extended". Pretorius (1996:46) states that learning "is about the acquisition of new information, as also about problem-solving, decision-making, and application of knowledge to various areas." Pollard & Tann (1993:103) claim that learning is a cognitive, social and affective process. Lemmer & Squelch (1993:59) are of the opinion that learning in a multicultural context is influenced by extra-individual variables such as environmental and sociological factors and individual/intrapersonal variables such as emotional, physical and psychological factors, as well as the student's learning style. This view is substantiated by Ellis (1985:99) who claims that personal factors (i.e. group dynamics, attitudes towards the teacher and course material and individual learning techniques), cognitive style (e.g. learning method), attitudes and motivation as well as social factors all play a role in the way the L2 learner learns.

Studying involves "practising and processing of learning content or learning matter so that the subject matter becomes own insight and knowledge and can be applied to new situations" (Jacobs, van Jaarsveld & von Mollendorf 1991:494). Learners proceed from the familiar to the unfamiliar. Baker & Brown (1984:367) point out that in order to study effectively, the learner must take action to ensure that he understands and remembers the material. Anderson & Armbruster (1984:657) point out that studying is associated with the requirement to perform identifiable cognitive and/or procedural tasks. Jacobs *et al.* (1991:503) point out that the following aspects are necessary for effective learning/studying:

- Listening attentively and with interest to the lecture. Making notes during the lecture as the student cannot remember everything.
- Adequate reading skills for studying. Students must be able to understand what they are reading when studying.
- The learner must be able to summarise the learning material in order to gain an overall idea of the content.

At this stage, it is necessary to focus briefly on skills which pertain to learning through the medium of an L2.

2.3.1 Language and learning skills

Language skills refer to the activities of listening, speaking, reading and writing (Fanning 1988; Richards *et al.* 1992). Candlin *et al.* (1978:199) assert that every learning situation (e.g. lecture or private study) requires more than one language skill. For instance, note-taking in the lecture situation might entail listening and writing. Private study might necessitate reading and note-taking (i.e. writing). Many of the issues relevant to this section have already been dealt with in Chapter 1 (cf. § 1.1.2). It was shown that academically vulnerable L2 students often have BICS but underdeveloped CALP and also have linguistic and learning problems. They frequently exhibit inert, passive and impulsive learning styles and do not always use effective learning strategies.

2.3.2 Academic skills

The term *academic skills* implies skills related to an academic subject such as Socio-pedagogs. It also refers to the English pertaining to the content of courses offered at education colleges and universities. *English for Special Purposes* (ESP) refers to the specific needs of L2 students. In this particular research, the need for L2 students to master and understand the terminology and content in the various *Education* courses. Robinson (1980) uses the terms *English for Academic Purposes* (EAP) and *study skills* synonymously. More specifically, Robinson (1980:7) states that EAP or study skills refers to "how to study through the medium of English, regardless of the subject matter of the studies". According to Coffey (1984 in Jordan 1989:150), EAP can be either common core or subject-specific. If it is common core it will refer to general academic language and stress study skills. On the other hand, if it is subject-specific it will examine the language features of particular academic disciplines or subjects such as social sciences. Others view study skills as one of the main components of EAP courses (Kennedy & Bolitho 1984; Hutchinson & Waters 1987 in Jordan 1989:150). In practice there is usually an overlap between EAP and ESP students' needs because most students have "mixed" status (Morley 1991).

2.3.3 The interaction between learning and teaching

According to Brown (1987:7) teaching and learning are interwoven. This is because teaching guides and facilitates learning, enabling the learner to learn and thereby setting the conditions for learning. The manner in which the learner learns will be influenced by the lecturer's philosophy of education, teaching style, approach, methods and classroom techniques (Anderson & Armbruster 1984; Brown 1987). These factors can contribute to or detract from the success or failure of the L2 student's academic performance.

2.3.4 Traditional teaching and learning through the medium of an L2

In section 2.3, the multi-componential nature of learning was shown. Most teaching approaches at South African schools are teacher-centred and teach specific content. This is confirmed by Squelch (1993:194) who observes that teachers in SA schools for black children use mainly rote and lecture methods of instruction. Because syllabi and schemes of work and teaching reflect 'information recall' and simplistic 'right or wrong' approaches to problem-solving, black L2 students tend to have a strong reliance on rote learning and in a sense, are passive participants in the learning process. These learners display inert modes of learning, namely they have "problems with processes that assemble, transfer, integrate, infer and apply information" (Pretorius 1996:52).

Glaser (1985:x) refers to a study by Chipman & Segal (1985:1) which reveals that schools prioritise the basic skills of reading, writing and mathematics and pay less attention to, or even neglect, learning, reasoning, general problem-solving skills and even sophisticated aspects of reading. Chipman & Segal (1985:1) maintain that "it is assumed, or hoped, that repeated attempts to learn or solve problems will automatically result in improvement of general ability to reason or solve problems". With respect to SA schools, Macdonald (1990:81) claims that L2 teachers often do not take students "through" from cognitively undemanding to cognitively demanding tasks (cf. § 1.1.2.1).

Local research findings such as Macdonald's Threshold Report (1990:40) deal with the consequences of this type of schooling. Macdonald's findings show that black L2 students

in state schools scored considerably lower than students in multicultural schools on most language tasks (e.g. reading, writing, listening). Moreover, these students did not master "text below their own grade level". This problem is exacerbated by teachers who frequently tend to think that students have acquired the basics of a text or subject and move on to cognitively demanding tasks. As a result, L2 students struggle through primary, secondary and tertiary levels of schooling because they are unable to cope with academic reading texts which are a prerequisite for survival in the learning context (Pretorius 1996:36).

Although some students might find the teacher-centred learning approach and a passive learning approach to be successful at school and it may enable them to pass the senior certificate examination, it is not suitable for tertiary learning where learning occurs both through independent individual studying and reading and through peer group learning. This is confirmed by local research which has revealed that many black SA L2 students have general learning problems (i.e. passive learning and heavy reliance on rote learning) and specific reading (i.e. reading for the main idea and summarising) and listening comprehension problems (i.e. for note-taking) and as such are not academically successful (Jardine 1986; Blacquièrè 1989; Perkins 1991).

2.3.5 The demands and skills in the L2 tertiary learning situation

In general, many L1 and L2 students find their first few weeks at tertiary learning institutions confusing and frustrating. Even students who excelled academically at high school find it a difficult and challenging experience (McWhorter 1995:1). At tertiary level, lecture time is often spent on introducing and discussing content that has to be learned in specific courses and learning is the responsibility of the student. Unlike secondary school, lecture time is insufficient to provide for drills, practice and reviews of course content, and lecturers function mainly as guides (McWhorter 1992).

In SA, a large number of students are studying through the medium of second or third language at tertiary institutions. Tertiary learning is a complex activity which involves language and study skills, knowledge, strategies and experience. As mentioned, language plays an important role in learning. This means that the L2 learner has to be proficient or

skilled in the four language skills of the L2, namely listening, reading, writing and speaking. However, researchers such as Adamson (1990:67) have found that ESL students do not perform adequately in mainstream academic courses, even though their general language proficiency may be adequate in social situations. Raphan & Moser (1993/1994:17) suggest that universities tend to admit L2 students who are ill-prepared in the academic skills of reading, writing, speaking and listening and that this may contribute to poor achievement at tertiary level. It can be deduced from Adamson (1990) and Raphan & Moser's (1993/1994) studies that L2 students may have adequate BICS but inadequate CALP.

Raphan & Moser (1993/4:18) state that English L2 tertiary students sometimes come from cultures in which "give-and-take between teacher and student is totally absent". This, in conjunction with the limits of their English language skills, influences their academic performance. The former issues were discussed at length in Chapter 1 (cf. § 1.1.2.1 and 1.1.2.3). According to McWhorter (1995:6), students often do not achieve academically at tertiary level because their study methods are not effective or they need to become more active and involved with the subject matter. For instance, a student might employ a passive, inactive or inert approach when learning. This could include memorizing or rereading the subject matter. Pretorius (1996:47) points out that inert learning involves "oversimplified representations of complex content matter with low degrees of variability, flexibility, interrelationships and integration". In other words, the student does not take the learning process further than the lecturer tells him to. This implies that the student fails to think about the subject content, is unable to organize the learning material, and does not ask questions, solve problems or analyze the task at hand. Moreover, the student is unable to infer, apply or transfer knowledge in new situations. In addition, the student has problems with selecting appropriate learning and reading strategies, carrying them out and testing their effectiveness. Chipman & Segal (1985:1) state that there is a need for explicit instruction in thinking and learning skills, as in the traditional learning and teaching situation students are not shown "how to go about learning".

2.3.6 The need for teachers to develop thinking and learning skills

It is important for teachers to move away from teacher-directed instruction and the teaching

of subject matter alone and to bring understanding to the forefront by creating opportunities for learner-centred learning to take place in the classroom. The teacher needs to be empowered to provide learning situations which will produce thinking, critical learners and enhance cognition through the improvement and development of problem-solving and critical skills (Educational Focus 1993 in Education and Culture Service 1994:9). This implies that South African teachers need to be taught thinking and learning skills and how to teach these skills, and learners need to learn these skills.

Nunan (1990:29) states that a learner-centred approach or the learning strategy teaching approach implies a different relationship between teachers and learners, namely that students are taught how to learn, instead of being taught specific content. The teacher thus becomes a 'facilitator' of her students' learning. Nunan (1990) cautions that some teachers might experience the collaborative involvement of learners in planning, implementing and evaluating their own learning as detrimental to their authority. In spite of this, teachers and L2 students should be made aware of the nature and form of useful knowledge and "learning strategies that are likely to facilitate its creation" (Derry 1990:348).

Lockhead & Clement (1979 in Bransford, Vye, Kinzer & Risko 1990:381) assert that colleges have "courses on what to learn" rather than having courses on teaching [the student] how to learn" (Bracket mine G K-D). Students should be assisted to improve their skills, learn productively and think clearly and also be provided with relevant knowledge to facilitate problem-solving (Bransford *et al.* 1990). Chipman & Segal (1985:15) similarly suggest that there is a need to train or develop "the mental processes that make up [learning] strategies" and for students to develop verbal approaches to cognitive skills (Bracket mine G K-D). This is especially necessary at tertiary level where the nature, demands and expectations of studying differ from school, and tertiary students have to take responsibility for their own learning. According to Nunan (1990) a learner-centred approach for L2 learners encourages students to monitor and assess their own progress.

2.4 CONCLUSION

This chapter dealt with the importance of reading and listening comprehension in L2 tertiary learning. As stated at various stages in Chapters 1 and 2, many L2 students, including the

students in the present study, have reading and listening comprehension problems. The intervention programme focuses on specific aspects, namely, identification of main ideas, summarisation and note-taking (cf. Chapter 4). It is hoped that after examining the effect of explicit instruction in (a) identifying the sentence with the main idea and (b) instruction in the use of a summarising technique, the findings of the present research will make a contribution to L2 reading comprehension research. In addition, it is hoped that my findings on the value of instruction in note-taking (e.g. identifying the main, controlling and supporting ideas) will also make a contribution to L2 listening comprehension research and theory.

2.5 SUMMARY

The first section of the chapter was devoted to a discussion of the concept *reading*, after which a historical overview of reading models was given. During the 1960s reading was viewed as a mechanical bottom-up decoding process. The *Audiolingual Method* which stressed oral language skills, namely, speaking and listening (which entail the use of BICS) became popular at this time. With the influx of L2 university students in the USA and UK during the late 1960s, a need arose for the training of reading and study skills (which entail the use of CALP). This was because students battled to take down notes (i.e. write while listening) during lectures and also found difficulty in reading for studying.

During the 1970s the importance of *top-down psycholinguistic processes* in reading was emphasised. Simultaneously, L2 teachers and students recognised a need for special reading instruction. This led to a decline in instruction by means of the oral approach (e.g. ALM). In addition, during the 1970s advanced reading and writing instruction was stressed in L2 instruction (Grabe 1991). During this period, Goodman & Smith proposed that reading was a complex processing skill and a *psycholinguistic guessing game*. The L2 learner was perceived as a person who is actively searching for meaning, guessing from contextual cues and testing predictions from the reading text. This period also stressed the importance of background knowledge and top-down conceptual skills in reading. At the same time, Rumelhart suggested that reading is an *interactive process* which requires both top-down and bottom-up processing. During the late 1970s researchers also became interested in *metacognition* and critical thinking in reading and learning (cf. § 2.1.1 and Chapter 3).

Research on L2 reading and listening during the 1980s stressed the importance of *schema* also known as *background knowledge* (i.e. linguistic, cultural and world knowledge). The 1980s also saw the advent of interactive views of reading and listening in terms of reader-text interaction and bottom-up/top-down interaction.

Current views on L2 reading comprehension show that reading is not merely a decoding process or solely a comprehension process. Neither is it just a decoding plus comprehension combination. Instead, the current *synthesizing position* or interactive view of reading stresses the simultaneous processing of bottom-up and top-down processing in the mind of the reader or listener, the interaction between the reader or listener and the text as well as the interaction between *component skills* (i.e. word recognition, vocabulary, formal and content schemata, synthesis and evaluation skills/strategies as well as metacognitive knowledge and skills monitoring). In addition, *eye-movement studies* have shown that reading is a fast, precise and highly automated process.

The focus on the concept *comprehension* in the L2 study and lecture situation showed that there are two main areas of comprehension involved in tertiary learning, namely reading for meaning and studying, as well as listening for note-taking. After the research literature had been examined, it was concluded that L2 students appear to experience problems with the following aspects of reading: concentrating on the main idea, becoming aware of the logical structure of the text and task characteristics and summarising the reading text (Baker & Brown 1984; Garner 1987; Padron & Waxman 1988; Tarlow 1990). Several differences between good and poor readers (i.e. comprehenders) were identified.

The concept *listening comprehension* was defined. A review of research pertaining to L2 listening comprehension followed. It was shown that listening comprehension is an interactive, bottom-up/top-down process. The effects of various variables on listening were examined. These included simplification of L2 input, attention, memory, monitoring of comprehension and affective factors. Research findings indicate that listening is a predictor of L2 proficiency. Furthermore, the purpose of L2 listening (e.g. listening for the main and supporting ideas) and the type of listening required (e.g. understanding the general message or details) were mentioned. What the listener does to show successful listening was also discussed. The importance of main idea and the comprehension of details and note-taking

during the tertiary lecture situation was also emphasised.

A brief comparison of L2 listening and reading comprehension revealed that although there are some differences between listening and reading tasks, the general processes seem to be similar. The reason for this is that "comprehension is dependent on a set of cognitive mechanisms that are common to both reading and listening comprehension" (Pretorius 1996:44). The literature study revealed that L2 students experience difficulty with comprehensive listening because of several factors. These include the speech rate of the lecture and problems with paying attention and monitoring their own comprehension effectively. L2 students also tend to employ inadequate strategies to assist them in remembering what the lecturer is saying (Oxford 1993; King & Behnke 1989 in Rubin 1994). Affective factors such as L2 students' attitudes, beliefs and emotions in connection with their listening ability also have an influence on their listening and note-taking ability (Lund 1990; Oxford 1993). After the types of listening problems of poor comprehenders in the L2 lecture situation were identified, training in the area of academic listening and note-taking was proposed.

In the second section of the chapter the concept *learning* and the interaction between learning and teaching were elucidated. Attention was drawn to the fact that traditional teaching approaches in SA schools were mostly teacher-centred and that L2 students tend to be inert learners. Because they have general learning problems (i.e. passive learning and tend to rely on rote learning) and also have specific reading/listening comprehension problems which possibly stem from their primary school days including tertiary level, black L2 students generally do not achieve their academic potential.

The demands and skills required in the L2 tertiary learning situation were discussed. Possible reasons for L2 students' inadequate academic performance were highlighted (i.e. reliance on memorization and their inability to integrate, infer and apply knowledge in new situations). It was established that there was a need for lecturers to develop thinking and learning skills and strategies. Furthermore, there is a need for L2 students to become aware of their own thinking and to acquire adequate learning strategies for studying in order to teach them to think for themselves. This implies that South African teachers need to be taught these skills, and how to teach them whereas learners need to learn these skills.

CHAPTER 3

METACOGNITION AND ITS ROLE IN L2 TERTIARY STUDY

3.0 INTRODUCTION

The aims of this chapter are to review the concept *metacognition* and its ramifications, to show how the concept has changed, to appraise the importance of metacognition in thinking, studying and L2 tertiary learning with specific reference to reading and listening comprehension, to examine research on learning strategies with special reference to metacognitive and cognitive strategies and to highlight research findings about metacognitive instruction.

To achieve these aims firstly entails discussing the historical development of the concept metacognition, including Flavell's early and more recent views on metacognition. Secondly, it involves examining problems associated with defining the concept *metacognition*. Thirdly, it necessitates investigating new perspectives on metacognition, such as the affective aspects of metacognition (e.g. motivation) and metacognition as shared behaviour. Fourthly, it requires demonstrating the interaction between metacognition, cognition and reading and learning. Fifthly, it means identifying L2 students' metacognitive problems pertaining to learning and examining possible ways in which the metacognitive problems pertaining to L2 learning can be remedied in order to improve reading and listening comprehension for study. Finally, the concepts *transfer* and *bridging* need to be discussed.

3.1 A REVIEW OF METACOGNITION AND ITS RAMIFICATIONS

According to Paris & Winograd (1990:16), most researchers shy away from defining metacognition. This is because it is a complex and fuzzy concept which is often misunderstood (Flavell 1981:37; Brown 1987:65). As an alternative, researchers "use examples of students' thinking about thinking in order to illustrate metacognition" (Paris & Winograd 1990:15). Examples include expert readers reflecting as they think aloud about the text they are reading. Researchers also shy away from using operational definitions which

may constrain the construct and as a result the concept *metacognition* remains open-ended and definitions of metacognition in a sense become projective tests. In 1985 Flavell (in Paris & Winograd 1990:19) remarked that the important aspects of cognitive development are usually difficult to pin down, define and demarcate. Despite these reservations, Flavell (1987:21) defined metacognition as: "knowledge and cognition about cognitive objects, that is, about anything cognitive. However, the concept could reasonably be broadened to include anything psychological, rather than just anything cognitive". The concept *metacognition* will be dealt with more extensively in section 3.1.4. The reason for delaying an explanation of the concept is that it has changed over time, and more recent views provide more detailed specifications of the concept.

3.1.1 The historical development of the concept *metacognition*

Interest in metacognition (and metalinguistic abilities of children) came about in the seventies. Research activity in metacognition was initiated by Flavell's study of metamemorial processes (i.e. knowledge about one's own memory abilities and strategies) in children (Brown 1978:81; Brown *et al.* 1983:83; Brown 1987:66; Garner 1987:16). The assumption was that children's memory was influenced and determined by their knowledge of what actions were appropriate and beneficial in solving memory problems. The research technique took the following format: Children were asked questions about their memory knowledge, they were then given a memory task and the quality of their performance was subsequently related to verbal metamemorial awareness of the task (Borkowski, Carr, Rellinger & Pressley 1990:54).

3.1.2 Flavell's early views on metacognition

Flavell (1976:232), a major protagonist in the field of metacognition, wrote that "metacognition refers to one's knowledge concerning one's own cognitive processes and products or anything related to them". This implies that metacognition is about how learners develop knowledge about their own thinking. In addition, metacognition also pertains to "the active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive objects or data on which they bear, usually in the service of some concrete

goal or objective" (Flavell 1976:232).

Forrest-Pressley & Waller (1984:1) expound on Flavell's definition of metacognition as follows:

We have [conscious] knowledge about our cognitive (i.e. mental) processes and we use this knowledge to choose the most efficient strategy for, or ways of dealing with, any problem that we might face. The particular problem could be as simple as remembering a telephone number or as complex as writing a research report. Regardless of what the task is, as we proceed we monitor and regulate our activities (Bracket mine G K-D).

From the definition and interpretation above, it may be deduced that metacognition refers to learners' awareness and knowledge of their own learning processes, as well as their abilities and tendencies to control those processes during learning (Derry 1990:349). At the same time, Flavell's early (1976) definition stresses that metacognition is basically "cognition about cognition" (Garner 1987:16).

3.1.3 Factors affecting metacognitive knowledge

During 1977 Flavell & Wellman identified the major categories of memory metacognition.

... some situations call for planful memory-related exertions and some do not. A person no doubt comes to know this fact Performance in a memory situation of task is influenced by a number of factors, the nature of which a person must know. We see three main classes of such factors: (1) memory-relevant characteristics of the person himself; (2) memory-relevant characteristics of the task; and (3) potential employable strategies (Flavell & Wellman 1977:5).

According to the above account metacognitive knowledge can be subdivided into three categories according to the following variables, namely, knowledge of person, task and strategy (Flavell 1978 in Nickerson, Perkins & Smith 1985:101; Flavell 1979:907; Flavell 1987:22). The three kinds of variables interact with one another and are dependent on one another (Garner 1987:17). These three variables will now be discussed.

The *person variable* refers to knowledge learners have about the way they learn. Baker & Brown (1984:370) maintain that students require self-knowledge in order to succeed in

studying. Examples in the areas of learning and reading include: students know whether they are good or bad memorizers, and whether they learn better by listening than reading.

The *task variable* refers to knowledge about the task that learners face. Successful students know something about the difficulty of a text or task. For instance, they know that reading a familiar topic is easier to understand than an unfamiliar topic. Proficient students know that a topic sentence assists them in tasks that have to be reduced to their gists (Garner 1987:17). They also have text knowledge viz: what is important and what is trivial. In addition, they know that an organised text is easier to recall than a disorganised text. A study conducted by Baker & Brown (1984:371) revealed that less proficient students have "little awareness of the text and task characteristics that should be taken into account when studying" (Baker & Brown 1984:371).

The *strategy variable* relates to knowledge about strategies learners use. For instance, some students know that verbal rehearsal assists them to recall facts (Flavell & Wellman 1977; Flavell 1981:38; Flavell 1987:22; Garner 1987:17).

3.1.4 Flavell's more recent views on metacognition

During 1981, Flavell's views on metacognition changed from his early views, to include psychological and cognitive domains. Flavell (1981:38) said: "Metacognition can be differentiated into metacognitive knowledge and metacognitive experience, and one can distinguish between metacognitive and cognitive [learning] strategies" (Bracket mine G K-D).

The differences between knowledge and experience on the one hand, and metacognitive and cognitive learning strategies on the other hand, will now be explored.

3.1.4.1 Metacognitive knowledge

According to Flavell (1985 in Garner 1987:18), metacognitive knowledge is important to learners but is not as mysterious or alien to individuals' other systems of knowledge as it might appear. Moreover, Flavell (1985 in Garner 1987:18) explains that metacognitive

knowledge is more or less the same as other kinds of knowledge, such as knowledge of classical music. It grows slowly and gradually through years of experience in the domain of cognitive activity. It is similar to other stored knowledge, in that it can be activated automatically. Garner (1987:17) states that metacognitive knowledge is "relatively stable, usually stable information about cognition". Campione (1987:119) explains that metacognitive knowledge is stable in that once individuals acquire some pertinent fact about cognition, they "continue to have that fact available". If knowledge is stable then it means that it is conscious knowledge which can be accessed. This is verified by Campione (1987:119) who states that stable knowledge "is assessed through verbal reports".

During 1983, Paris, Lipson & Wixon (in Paris & Winograd 1990:17) explained metacognitive knowledge in terms of declarative, procedural and conditional knowledge. In Flavellian terms metacognitive knowledge refers to knowledge students have about their cognitive abilities, task factors which influence cognitive difficulty and cognitive strategies students employ (cf. § 3.1.3). These three aspects of metacognition will now be discussed.

3.1.4.1.1 Declarative knowledge

Declarative knowledge is factual in nature (Paris & Winograd 1990; Marzano 1991:419). According to Marzano (1991:419), declarative knowledge is sometimes characterised as knowledge *that*. On one level, it includes knowledge about facts (e.g. dates or historical events) while on a more complex level it includes problems and solutions. With respect to the learning or study situation, it is essentially knowledge that L2 learners have about their personal cognitive abilities, task factors that influence cognitive difficulty or cognitive strategies that may enhance or impede academic performance (Kaplan 1990). For instance, some L2 learners may know that they are more successful at answering true and false questions than essay questions. With regard to study strategies, students know that they study in a certain way.

3.1.4.1.2 Procedural knowledge

Procedural knowledge refers to information on *how* (i.e. under what condition) to do

something (Anderson 1980:223). For example, knowing how to drive a car, how to do a multiplication exercise or how to decode words in reading (Chi 1987:246; Jones & Idol 1990:516). Procedural knowledge is important in the school and college learning situation. For instance, to the experienced reader, knowing how to read for the main idea implies having unconscious knowledge of the procedure. Procedural knowledge incorporates both process knowledge (e.g. steps or rules involved in learning) and conditional knowledge, that is, knowing when the process should be employed (Chi 1987; Derry 1990; Marzano 1991).

3.1.4.1.3 Conditional knowledge

This kind of knowledge refers to *when* and *why* to apply various strategies and knowledge (Paris & Winograd 1990). For example, L2 learners know that reading a magazine for enjoyment differs from reading a textbook or preparing for an examination. This is because in each case the purpose of reading is different. When reading a textbook or preparing for an examination, L2 learners have to decide which facts and ideas are necessary and then they have to set about finding them. This might necessitate reading, taking notes and summarising in an organised and competent way.

3.1.4.2 Metacognitive experiences

Flavell (1987:24) states that metacognitive experiences are "conscious experiences that are cognitive and affective". The difference between metacognitive experiences and other types of experiences is that they are concerned with some cognitive endeavour or enterprise, usually a current, ongoing one. For example, when the learner suddenly has an anxious feeling that he has not understood something and wants to understand it, according to Flavell (1987:24) that feeling would be a metacognitive experience. The author (1987:24) stresses that metacognitive experiences are pertinent to conducting intellectual life, an ongoing cognitive situation or enterprise. Paris & Winograd (1990:23) point out that when students are asked whether they are good students, they will often reply with strong feelings and emotions. This is because cognitive evaluations are seldom devoid of affect. These "metacognitive experiences" or emotional/attitudinal accompaniments of cognitive self-appraisal, influence the manner in which students think about themselves as learners.

For example, on the one hand, students may experience emotions such as helplessness, doubt or shame. On the other hand, they may feel confident, proud and self-assured (Paris & Winograd 1990:23). Brown (1987:127) maintains that L2 learners benefit from positive attitudes and that negative attitudes may lead to decreased motivation (an aspect of metacognition) and task input and, in turn, to unsuccessful attainment of proficiency (cf. § 3.2.1).

3.1.4.3 The difference between metacognitive knowledge and experiences

According to Flavell (1981:40), *metacognitive knowledge* comprises long-term memory representations of the kinds of knowledge described by Flavell & Wellman during 1977 (cf. § 3.1.3). It is related to that part of the individual's "accumulated world knowledge that has to do with people as cognitive agents and with their cognitive tasks, goals, actions, and experiences" (Flavell 1981:40). It is similar to other kinds of knowledge, in that relevant properties of metacognitive knowledge "may be retrieved and employed during a cognitive enterprise either automatically or deliberately, and either with or without entering consciousness" (Flavell 1981:40). *Metacognitive experiences* are conscious experiences such as ideas, thoughts, feelings and sensations. It is also known as the "here-and-now memory states" of the individual. For instance, the student suddenly realizes that the learning material is becoming easier than it has previously been (Flavell 1981:40; Flavell 1987:24).

The discussion of metacognitive and cognitive strategies will be left to the section on research on L2 learning strategies, since these strategies are in fact learning strategies (cf. § 3.6).

3.1.4.4 The concept *learning strategy*

Derry (1990:348) asserts that there is confusion regarding the term *learning strategy*. This may be attributed to the fact that it is a broad term and refers to different competencies that are required for effective learning and retention of information for future use. These include cognitive information-processing strategies such as techniques for organizing and elaborating on incoming information to make it more meaningful, active study strategies for note-taking, test preparation or directing attention to the learning task at hand (Weinstein & Underwood 1985:241).

Oxford & Crookall (1989:404) maintain that learning strategies are steps taken by the learner to "aid the acquisition, storage, and retrieval of information". In other words, learning strategies are plans that learners formulate to accomplish a learning goal (Chi 1987:247; Derry 1990). Learning strategies are also known as "techniques, behaviours or actions; or learning-to-learn, problem-solving, or study skills" (Oxford & Crookall 1989:404). With respect to listening and reading comprehension for studying, they may include self-management activities such as planning and comprehension monitoring. This issue will be discussed in more detail later on in this chapter (cf. § 3.6).

3.1.5 Metalinguistics as a component of metacognition

As stated previously (cf. § 3.1.1), during the 1970s, with the rising interest shown in metacognitive awareness, researchers also became particularly interested in children's level of metalinguistic awareness, namely the "ability to reflect upon the structure and functions of language independently from its informational or social functions" (Ryan 1975 in O'Malley & Chamot 1990:121; Grieve, Tunmer & Pratt 1983 in Van Damme 1994:97). According to Herriman (1991:327), metalinguistic awareness has been studied in the following three contexts: as part of metacognition, as part of language, as well as part of learning to read and write.

3.1.5.1 Metalinguistic awareness as part of metacognition

Metalinguistic awareness is regarded as a specific manifestation of metacognition wherein the attentional focus of cognition is directed towards language. Metalinguistic awareness includes attentional and self-monitoring strategies (Herriman 1991:335). Younger children make themselves understood by choosing attention-getting and attention-keeping devices and checking that they have been understood. For instance, they might employ structures such as "The closet, you know, the place where you put your clothes" (Brami-Mouling 1977 in Bullinger & Chatillon 1983:245).

Herriman (1991:336) advocates the explicit teaching of metalinguistic awareness skills with respect to reading, writing, speaking and listening. According to Bialystok & Ryan (1975

in O'Malley & Chamot 1990:59-61, Bialystok & Bouchard Ryan 1985), the solving of metalinguistic problems in reading and writing requires an awareness of procedural skills and cognitive control. In the present L2 study emphasis will be placed on metalinguistic awareness as part of metacognition (i.e. knowledge or awareness of the procedure, skills and strategies of reading for the main idea and summarising). It will also include self-regulatory aspects such as paying attention, monitoring, checking, evaluating and testing for reality.

Since the seventies, there has been a plethora of studies on the topic of metacognition and much of the literature is instructionally-based. It is specifically aimed at the teaching of learning strategies (e.g. metacognitive and cognitive) and thinking skills to L1 and L2 students (Rubin 1975; Oxford & Crookall 1989).

3.1.5.2 Metalinguistic awareness as part of language

Richards *et al.* (1992:228) point out that in language learning, metalinguistic knowledge refers to "knowledge of forms, structure and other aspects of a language, which a learner arrives at through reflecting on and analysing the language". Metalinguistic awareness or knowledge also refers to the capability of the language user to reflect on choices available for the representation of linguistic information and to generate rules or rule-like generalizations about language structure and function (Herriman 1991:328).

Van Damme (1994:100) points out that there are six types of metalinguistic awareness: monitoring; checking results; testing for reality (e.g. deciding whether a word works or not and if not, trying another one); deliberately trying to learn; predicting (e.g. the consequences of words, phrases or sentences); correcting (e.g. word order in sentences) and reflecting on the product. The first four types of metalinguistic awareness are repair strategies whereas the last two types require the learner to use and evaluate language out of context. It is relevant to note that the six types of metalinguistic awareness are self-management techniques and are similar to the metacognitive strategies employed by proficient readers in reading, as proposed by Baker & Brown (1984:354).

3.1.5.3 Metalinguistic awareness as part of learning to read and write

Metalinguistic awareness/knowledge is a general kind of language consciousness and is closely related to the types of strategies a student employs whilst reading (Hook & Johnson 1978:75). The research findings of Flood & Menyuk (1983:65) indicate that reading achievement and age are positively related to metalinguistic ability. Research has also revealed that the ability to manipulate structures related to phonology, morphology and syntax can facilitate the acquisition of reading even though the reader will not normally be aware of the explicit formulation of the rules involved. Metalinguistic awareness of language includes the following: print, phonemic, word, morphological, syntactic and pragmatic awareness and vocabulary knowledge (Herriman 1991:330-1; Ricciardelli 1993:349; Yelland, Pollard & Mercuri 1993). Herriman (1991:331) asserts that literate adults or mature readers possess metacognitive knowledge and skills and "utilise the knowledge implied by these capabilities". Moreover, in adults the forms of knowledge and awareness have become automated and are seldom the object of conscious awareness. In a sense, metalinguistic knowledge is similar to procedural knowledge, that is, knowing how to do something (Herriman 1993). O'Malley & Chamot (1990:71) also recognise the procedural aspects of metalinguistic processing in L2. Hook & Johnson (1978:75) point out that poor readers seem to have difficulty abstracting and applying rules in language and reading.

3.1.6 Problems associated with the concept *metacognition*

There is fundamental disagreement whether metacognition means conscious awareness of thinking (Paris & Winograd 1990). According to Forrest-Pressley & Waller (1984:6), metacognition is conscious knowledge about cognition, namely "what a person knows about his or her cognitions (in the sense of being consciously aware of the processes and being able to tell about them in some way) and the ability to control (monitor) these cognitions". However, some researchers who are orientated to the executive functions of metacognition and self-management claim that metacognition can be "unconscious, tacit, and inaccessible" (Pressley, Borkowski & Schneider 1987 in Paris & Winograd 1990:19). In a sense, metacognitive definitions almost become projective tests when subjects have to provide verbal reports of their own cognitive processes. This is because subjects have to "step back" and

consider their "own cognitive operations as objects of thought" and then have to reflect on their thinking (Brown 1987:69).

A further problem relates specifically to the problem of fuzzy definitions, which in turn has implications for measuring the construct. When definitions are open-ended and difficult to measure, it leads to problems with reliability and validity. Metacognition is typically measured by means of verbal reports and awareness in research studies and in turn, issues such as validity and reliability arise. This is because experts may be unaware of the complexity of their thinking and novices may find thought processes difficult to explain. Verbal reports are frequently inaccurate (Garner 1987).

Another problem with the construct *metacognition* is that we do not have a very good understanding of metacognition and how it affects learning. This is substantiated by Paris & Winograd (1990:20) who assert that "prescriptions for instruction or intervention are unclear without a better understanding of how metacognition facilitates or impedes learning and performance".

Metacognition grew out of Piagetian developmental theory and cognitive psychology (Garner 1987:23-24; Kluwe 1987:32). Executive control falls within the domain of cognitive psychology, especially in connection with assumptions concerning the function of the executive component in information-processing systems. For this reason, it is possible to apply research data proposed by cognitive psychologists (e.g. the monitoring of cognitive success and failure) to metacognition (Garner 1987:23-24; Kluwe 1987:32).

According to Brown (1987:66), the term *metacognition* is problematic because it is frequently difficult to differentiate between "what is meta and what is cognitive". The reason for this might be attributed to the different historical roots from which this area of inquiry developed. For instance, metacognitive researchers speak about development of knowledge and conscious awareness. Executive control researchers are concerned with instruction for symbol manipulation, storage, input-output and information flow (Garner 1987:24). The interaction between cognitive and metacognitive functions is very noticeable in the domain of metacognition and reading, writing and studying. This issue will be taken up later again in the discussion (cf. § 3.3.1).

Another source of confusion concerning the term *metacognition* is that in modern psychological literature it refers to specific areas of research, namely "knowledge about cognition and regulation of cognition" (Brown 1987:67). Brown (1987) concedes that although the two types of metacognition overlap and feed on each other, attempts to try and separate them would lead to oversimplification. However, Brown, Bransford, Ferrara & Campione (1983:107) state that they are distinguishable. On the one hand, knowledge of cognition relates to "relatively stable, stable, often fallible, and late-developing information that human thinkers have about their own cognitive processes and those of others" (Brown 1987:67). On the other hand, regulation of cognition includes planning activities before undertaking a problem, monitoring activities during learning, and checking outcomes. These activities are "not necessarily stable, somewhat unstable, and relatively age dependent, that is, task and situation dependent" (Brown *et al.* 1983:107).

Despite these problems, Flavell (1987:28) is optimistic about the future of metacognition and predicts that "better ways to measure and assess metacognitive experiences and knowledge" and how it operates will develop. This is because metacognition is an important topic "worthy of further theoretical and experimental investigation". With regard to the virtues of metacognition the author of this dissertation takes a similar position to Paris & Winograd (1990:20) who claim that "the construct of metacognition is too important to be set adrift". The importance of metacognition in thinking, studying and L2 learning will be discussed in more detail (cf. § 3.2.3).

3.2 NEW PERSPECTIVES ON METACOGNITION

Broadly speaking, metacognition refers to the following two aspects of learning: self-knowledge/self-appraisal of the learner's abilities and self-regulation (Idol, Jones & Mayer 1991:73) or self-management (i.e. use of strategies, monitoring and revising ongoing performance). Currently, the concept *metacognition* also includes affective factors such as motivation which in turn is influenced by learners' attitudes, beliefs and judgements. In contrast to earlier views, where metacognition was viewed as individual behaviour, at present metacognition is viewed as shared behaviour (thinking aloud and sharing knowledge) (Kaplan 1990:48; Paris & Winograd 1990; Idol *et al.* 1991:73).

3.2.1 The motivational characteristics of metacognition

Oxford (1992:190) asserts that motivation "determines the extent of active, personal engagement in learning". Kogan & Wallach's (1967 in Beebe 1983:41) study on risk-taking amongst L2 students reveals that individual personality factors such as the student's motivation to achieve, need for approval and self-esteem influence whether learners use risky or conservative strategies during learning. It has been suggested that L2 learners who experience problems with learning tend to have lower self-esteem and may not be prepared or motivated to take risks in an L2 learning situation when compared to successful learners.

Research has revealed that there is a relationship between metacognition, motivation and L2 learners' academic performance (Chi 1987). Oxford & Ehrman (1992:191) point out that if L2 learners experience a learning task as irrelevant or uninteresting they become disinterested and this might lower their level of motivation and involvement. If learners have negative attitudes towards learning their motivation will be lowered and they might display negative attitudes towards the value of learning (cf. § 3.1.4.2). Paris & Winograd (1990) claim that the motivational aspects of metacognition (e.g. judgments, beliefs and choices) are embedded in classroom learning as they contribute to whether or not L2 students put effort into a task and use cognitive strategies. Metacognition affects their orientation to the learning task and their opinion about their learning ability. The motivational characteristics of metacognition which influence self-regulated learning include metacognitive beliefs, judgements and choices. In this writer's opinion there is a more direct link between motivation and self-regulatory activities than there is between motivation and self-knowledge. Although there is an associated relationship between motivation and self-knowledge, it is not a causal one as proposed by Oxford & Ehrman (1992). I would argue that high levels of motivation do not necessarily lead to self-knowledge and self-knowledge does not necessarily always lead to high levels of motivation. Many tertiary students perform poorly, have very little self-knowledge, adopt inappropriate and ineffective strategies, but still have high levels of motivation. Despite my counter-arguments regarding the relationship between motivation and self-knowledge in the learning situation it is necessary to discuss the concepts metacognitive beliefs, judgments and choices as they enable students to become independent learners (Paris & Winograd 1990:43).

3.2.1.1 The L2 learner's metacognitive beliefs

Paris & Winograd (1990:27) state that metacognitive beliefs are "expectations" that students hold with respect to "thinking and learning". For instance, L2 students might attribute their success or failure in academic learning situations mainly to effort, ability, luck or other people. According to Paris & Winograd (1990:28-9), there are four cognitive dimensions that play a role in the beliefs of L2 students and their orientation to school or tertiary learning, viz, agency, instrumentality, control and purpose.

3.2.1.1.1 Agency

L2 learners develop beliefs and self-concepts about themselves as learners and their own cognitive capabilities. They may perceive themselves as generally competent or incompetent, skilful or unskilled in a specific area. To be successful, L2 students have to perceive themselves as intentional, self-directed and self-critical learners, i.e. as agents of their own success or lack of it.

3.2.1.1.2 Instrumentality

Learning strategies are regarded as being instrumental in academic performance. L2 students need to perceive that there is a connection between learning strategies (e.g. summarisation, note-taking and planning) and learning outcomes. Negative or mistaken beliefs concerning the usefulness of strategies can obstruct effort and achievement.

3.2.1.1.3 Control

L2 learners have beliefs concerning the control they exert over their thinking. These beliefs might be positive or negative. Students who have negative beliefs might view themselves as ineffectual and develop a passive or negative attitude towards learning. In contrast, students who hold positive beliefs about their control believe their actions contribute toward successful performance. According to Dweck (1986 in Paris & Winograd 1990:27), students can be either mastery-orientated or helpless. The former students attribute success to their ability

and believe that with effort they can overcome failure. Due to repeated failure, helpless students believe that they are unable to master a task and that further effort is futile. To avoid learned helplessness, students must believe in their own power to control and direct their thinking and learning. In addition, they need to bear in mind that failure is neither inevitable nor uncontrollable. They also have to accept that failure is a normal part of learning and that it can be constructively employed to shape future learning efforts.

3.2.1.1.4 Purpose

It is important for students to believe in the purpose of their learning, to have positive expectations about their performances and to value success. For example, students may sometimes avoid doing worksheets because they fail to perceive the purpose of such a task. Research has revealed that L2 students who are instrumentally or intrinsically motivated, score higher in proficiency tests (Lukmani 1972; Brown 1987). This is because they have a purpose for what they are doing - they study to attain goals such as qualifications for a career. If students avoid doing specific tasks, such as worksheets, they are in danger of forming negative metacognitive beliefs about the aim of learning (Paris & Winograd 1990).

From the above, it can be inferred that the metacognitive beliefs of L2 students about the agency, instrumentality, control and purpose of their learning, shape their orientation to tertiary learning and, if positive, can assist them in becoming independent learners.

3.2.1.2 The L2 learner's metacognitive judgements

Second-language students often encounter situations in the classroom or lecture room where they must make judgements about themselves, their abilities, learning strategies or the task at hand (Chi 1987:11). The following are questions students may ask when making judgements about the task of learning in a specific situation: What do I know about this topic? Is this task difficult or easy? Do I need to check or revise my work? What are the consequences of doing well or poorly? Questions about effort, expectations, difficulty, and outcomes necessarily involve social interactions, motivation dispositions, and consequences of learning. All of these judgements involve self-appraisal of cognition in some form or other (Paris & Winogard 1990).

The judgements of L2 students about aspects of the learning situation are the forerunners of their actions. If they judge themselves as having little knowledge and little hope of success, they will probably expend little effort on learning (Paris & Winograd 1990:26). Beebe (1983:46) states that good L2 learners are willing to take risks, create opportunities to learn and are not afraid to make mistakes. Nevertheless, previous "losses and wins do affect risk-taking". It is unlikely that L2 learners would be "oblivious to repeated success or repeated failures" (Kogan & Wallach 1967 in Beebe 1983:42). Metacognitive judgements thus reflect the knowledge L2 students develop about cognitive states and abilities and determine what students find worthwhile and choose to do (Paris & Winograd 1990).

3.2.1.3 Decision-making

Metacognitive beliefs involve expectations that "reflect affective biases, self-concept and motivational dispositions" (Paris & Winograd 1990:29). Collectively, knowledge, expectations and values influence what students do at a particular point in school or tertiary learning. There are three situations in which metacognitive judgements and beliefs guide choices and decision making in classroom learning (Paris & Winograd 1990), viz., choosing between tasks, investing effort and selecting a specific task.

3.2.1.3.1 Choosing between tasks

A choice between tasks depends on L2 students' perceptions of several factors such as expected reward, expectations for success, and the effort required to accomplish the task. All of these judgements are metacognitive and the resulting choice reflects an interactive trade-off of factors. According to Beebe (1983:42), the prior experience of L2 students (i.e. success versus failure), the value of the possible reward, their interest, and skill versus chance, will result in their choosing to employ extremely risky or conservative strategies.

There are situations in which metacognitive choices need to be made. For instance, a student may choose to do task A instead of task B and to spend time and effort on it. The specific strategy that L2 students choose to perform a task is dictated by judgements of the suitability of different tactics for that task. Students' awareness of the available strategies and

understanding of the utility of the strategies guides their choices (Paris & Winograd 1990:30). This implies that L2 learners' choice and actions within academic contexts, such as employing particular strategies, investment of effort, or selection of one task over another are based on metacognitive judgements and beliefs (Paris & Winograd 1990:29-30).

3.2.1.3.2 Investing effort

When L2 students are given an assignment in class, they have the option to try or not to try, or at least to put minimal effort into the task. The students' perceptions of task difficulty and their expectations of success or failure influence their choices. Moreover, every student has to decide if it is worth the risk to try hard on a task for which the expectations for success are low. Research undertaken by Beebe (1983:41) shows that L2 students with a high motivation to achieve are moderate, not high, risk takers. This is because they like to be in control and depend on skill. On the other hand, L2 students who strongly fear failure, and have a high need for approval, are likely to take a course of action which is either extremely risky or extremely conservative. They are less likely to change their risk-taking behaviour even when it leads to failure. In general, it appears as if students would rather avoid a task than work hard for little gain. Students are also not motivated to expend effort on tasks that are easy to master and offer little sense of enjoyment or mastery as this does not cultivate pride and self-competence. This is verified by Beebe (1983:42) who asserts that the degree of interest L2 students have in the task or amount of skills required will affect the outcome and their level of risk taking.

3.2.2 Metacognition as shared behaviour

As stated earlier (cf. § 3.1.2 & § 3.2), metacognition refers to knowledge about cognitive states and abilities that can be shared among people, and also includes the affective and motivational characteristics of thinking (Paris & Winograd 1990:21). Brown *et al.* (1983:148) point out that in the past, mediators such as parents and teachers were viewed as the dispensers of "pearls of cognitive wisdom". This is because teachers traditionally focused on the cognitive aspects of instruction such as teaching specific concepts, factual knowledge and strategies to improve learning performance. According to Paris & Winograd (1990:15), metacognition promotes positive self-perceptions, affect and motivation among students and

as such has implications for L2 learning and instruction (Chi 1987:7). This is because in classroom situations, effective teachers or mediators respond to learners who may feel confident, anxious, enthused, threatened or defiant. To promote metacognition and motivation, classroom practices should allow teachers and students to discuss their thoughts and feelings about learning. In such classrooms, the focus of learning and teaching is one of social interaction through dialogues (which can be both verbal and non-verbal) rather than through monologues.

Shared knowledge between students and teachers not only guides learning, but gives students the confidence to express their views and ideas. Students and their mediators influence one another and make mutual adjustments. This may include feedback from the learner to determine whether to repeat an instruction or to put the instruction into simpler words. Even teachers who seem to be lecturing in a monologue, attempt to anticipate the needs of their students and make use of feedback (Brown *et al.* 1983:148). In addition, effective mediators encourage students, try to help them stay on a task and express joy at their students' accomplishments. Learning proceeds smoothly when the student and mediator are in "synchrony" (Brown *et al.* 1983:148). This is substantiated by Hendrickson's (1987:366) study on L2 learners. Hendrickson (1987) states that teachers need to create a supportive classroom environment in which their students can express their ideas freely without feeling threatened or embarrassed. In addition, effective teachers display both empathy and expertise, and guide their students' learning with sensitivity.

3.2.3 The importance of metacognition in thinking, studying and L2 learning

Research has revealed that although students use their own study methods, they are not all successful (McWhorter 1995). Various studies emphasize the importance of metacognitive strategy instruction and learning (Brown 1980; Brown *et al.* 1983; Baker & Brown 1984; Garner 1987; Spires 1990; Fan 1993). Research has shown that a major difference between mature and less proficient learners is that the former exhibit greater metacognitive sophistication concerning learning and memory processes (Derry 1990:349). This is substantiated by Kaplan (1990:45), who asserts that metacognition seems to be a factor which is conducive to "learning to learn", in that it assists learners to "be more aware of and to become active participants in their own performance" instead of "passive recipients of

instruction and imposed experiences". According to Paris & Winograd (1990:22), metacognition promotes academic learning for the following reasons:

- It provides students with knowledge and confidence that allows them to manage their own learning and empowers them to be inquisitive and enthusiastic in their pursuits.
- As students acquire new knowledge and skills, they achieve mastery. Metacognition is thus critical because it enables students to understand their own thinking and learning.
- When students encounter learning problems or detect errors, they have recourse to strategies such as monitoring their performance or revising their plans. They may also seek assistance from others (i.e. metacognitive sharing behaviour).
- Awareness of the cognitive demands of the tasks and benefits of various strategies may provide explicit information about effective solutions (Paris & Winograd 1990).
- When students realize that a metacognitive strategy is important and required for success, it is probable that they will let it become part of their standard repertoire.
- When students believe that the reward for employing a strategy is substantial, they may be prepared to spend extra time on developing expertise (Spires 1990:155).

The aforementioned discussion on metacognition demonstrates the potentially positive value of L2 students gaining greater awareness about their own mental processes and the purposes of academic learning. This is because self-awareness, self-regulation and motivation encourage L2 students to have positive beliefs and in turn make positive judgements and choices in academic learning situations.

3.3 METACOGNITION AND READING: METACOMPREHENSION

A detailed description of reading was given in Chapter 2. It will suffice to point out that the ability to read with understanding is an essential skill in modern society as reading is one of the basic ways of acquiring information in our society and in academic settings (Spiro *et al.* 1980:1). Skilled reading involves more than chaining together the meanings of a string of decoded words (Spiro *et al.* 1980; Forrest-Pressley & Waller 1984; Kaplan 1990). It requires decoding, comprehension (i.e. an integrative process), reading strategies (e.g. reading for a purpose), knowledge about these skills and the ability to control or monitor them

(Forrest-Pressley & Waller 1984:6). If metacognition is "thinking about thinking", then according to Gordon & Braun (1985:4), metacomprehension is metacognition (knowledge and control over thinking and learning activities) as it refers to reading. Skill in metacomprehension, like metacognition, requires an awareness of the interaction between the person, task and strategy, and the nature of materials. Metacomprehension thus refers to (a) the learner's awareness of his level of understanding during reading and (b) the ability to exercise conscious control over cognitive actions during reading, by invoking strategies to facilitate comprehension of a specific type of text.

The efficient reader employs the following metacognitive strategies or activities whilst reading for comprehension and studying:

- clarifying the purposes of reading or summarising (i.e. understanding the explicit and implicit task demands. For instance, the purpose might be reading for entertainment or studying);
- focusing attention and identifying the aspects of the message that are important;
- monitoring ongoing activities to ascertain whether comprehension is occurring; X
- engaging in review and self-questioning or testing;
- taking corrective measures when comprehension fails; X
- recovering from disruptions and distractions whilst reading; and
- evaluating strategy selection in terms of the situation (i.e. task or goal demands) (Brown 1980:456; Baker & Brown 1984:354; Forrest-Pressley & Waller 1984:35).

3.3.1 The interaction between metacognition, cognition and reading

Richards *et al.* (1992:59) define cognition as mental processes employed in thinking, learning, remembering, perceiving and recognising. When the term *cognition* is applied to the L2 tertiary learning situation, it encompasses cognitive aspects of language such as vocabulary, the ability to identify concepts used in reading such as word or sentence, and the ability to use grammar rules and semantics (Forrest-Pressley & Waller 1984:66). According to Idol *et al.* (1991:67), cognition refers to "all aspects of human mental functions". It

includes knowledge acquisition, knowledge production and self-knowledge. Learners often use cognitive strategies such as summarising to assist them in reading or listening comprehension so they can remember the main and supporting ideas.

Regarding the difference between cognition and metacognition, Weinert (1987:8) claims that metacognitions are "second-order cognitions". This category includes "thoughts about thoughts, knowledge about knowledge, or reflections about actions". Garner (1987:16) asserts that metacognition is basically "cognition about cognition". Assuming that cognition entails perceiving, understanding and remembering, then metacognition concerns thinking about one's own perceiving and understanding. As related to reading, Forrest-Pressley & Waller (1984:1) state that cognition refers to the "actual processes and strategies that are used by a reader" whereas metacognition refers to what the learner "knows about his cognitions" and the ability to regulate/monitor or control these cognitions. With regard to reading, Flavell (1981:52) writes as follows about how metacognition interacts with cognition:

... we suddenly get a vague sensation (metacognitive experience) that we may not fully understand what we have just read, so we review (cognitive action) the material and our interpretation of it in order to find out exactly what, if anything, is amiss (metacognitive experience). Or we may decide to read something for some purpose (establish a goal) and start by skimming parts of it (cognitive action) in order to get some initial sense of how hard the going is likely to be (metacognitive experience).

Forrest-Pressley & Waller (1984:2) point out that the above metacognitive processes refer to "the control or executive processes" that direct the reader's or learner's "cognitive processes" and lead to effective use of cognitive strategies. If the L2 learner is unaware of his or her limitations as a reader or learner and the complexity of the reading or learning task, then he is unlikely to take preventative actions to prevent or recover from reading or learning problems (Baker & Brown 1984:354).

In general, reading deficiency is a serious problem confronting SA educators at present. One of the reasons is because students do not know what to do when they cannot understand a text (Collins, Brown & Larkin 1980:404). Students would benefit if they were taught strategies to implement when they do not comprehend (Collins *et al.* 1980:404).

3.3.2 Metacognitive problems pertaining to learning

Individual differences between L2 readers' cognitive problem-solving style or cognitive learning style (i.e. their general behaviour and attitude to a learning tasks) as well as metacognitive problems appear to influence academic performance. Feuerstein, Rand, Hoffman & Miller (1980:71) explain that deficient cognitive functions "may reside not in the operational level or in the specific content of the thought processes but in the underlying functions upon which successful performance of cognitive operations depends". Until the less skilled L2 learner, listener or reader is supplied with metacognitive and cognitive skills pertaining to reading for remembering or studying, he will continue to battle, regardless of how simple the problem is. At this stage, it is necessary to examine the learning and problem-solving styles as well as metacognitive problems of L2 tertiary learners.

Brown (1987:79) defines learning style as "those general characteristics of intellectual functioning" (and personality type) that especially pertain to people as individuals, that differentiate them from other people. These styles characterize a general pattern in people's thinking or feelings. For instance, the cognitive problem-solving style of the L2 student can be either active or inert/passive, reflective or impulsive. The active learner is dynamically involved in the learning process and efficiently uses many cognitive strategies such as self-questioning whilst reading and compares new information with what he already knows (assimilation and accommodation). Active learners are involved in their learning and have the motivation or desire to learn. In contrast, the passive or inert student, because of past learning experiences which possibly resulted in failure and in negative beliefs about his learning ability, does not know how to go about the task of learning (Lerner 1985:186-187; Paris & Winograd 1990). Research reveals that L2 black students who were exposed to rote and lecture methods which do not enhance independent learning, tended to be inert, passive and highly dependent learners (Squelch 1993).

The skilled reflective learner or reader proceeds with careful deliberation, considering alternatives before choosing a response to a problem. In contrast, the less skilled reader is not aware that in order to solve a problem effectively, there are dimensions to take into consideration which he has not thought about, and as such he responds impulsively and works

in an unplanned, unsystematic and disorganised manner. For instance, he might jump to a conclusion or employ a trial-and-error problem-solving style without considering possible alternative responses (Feuerstein *et al.* 1980:77-79; Baker & Brown 1984; Lerner 1985). Research has revealed that differences in cognitive style (i.e. reflective versus impulsive) affect academic performance in a variety of domains, including reading (Kagan, Moss & Sigel 1963 in Baker & Brown 1984:358; Silberstein 1987). It has been suggested that less skilled, impulsive L2 readers should be assisted to acquire a more flexible repertoire of useful cognitive strategies in order to alleviate the problem (Lerner 1985:187).

Research linking metacognition to reading comprehension reveals that less skilled readers have metacognitive problems (Baker & Brown 1984; Garner 1987). This is confirmed by Grabe (1991:382), who states that good readers are more effective in using metacognitive skills than less fluent readers. A similar notion is put forward by Baker & Brown (1984) who maintain that college students' metacognitive skills in a variety of areas could be improved.

Where reading is concerned, Baker & Brown (1984:358) point out that poor readers have "little awareness that they must attempt to make sense of the text". This deficiency might be due to the fact that some students are over reliant on decoding, instead of focusing on reading as a production of meaning (Baker & Brown 1984; Garner 1987; Silberstein 1987). Less skilled readers are also "unaware that they must expend additional cognitive effort to make sense of the words they have decoded" (Baker & Brown 1984:359). Garner (1987:36) states that less skilled readers also lack metacognitive knowledge specifically declarative and procedural knowledge (i.e. knowledge about themselves as comprehenders and the task). According to the author (1987:28), other metacognitive problems applicable to reading include metacognitive experiences about the task, the learner's ability, and strategy use. Baker & Brown (1984:381) suggest that less skilled readers require explicit training in selecting main ideas, summarising, checking their existing state of knowledge and selecting study aids. Furthermore, they require explicit instruction about when, where and how to use a strategy.

3.4 THE SIGNIFICANCE OF METACOGNITION IN ACADEMIC LEARNING WITH RESPECT TO READING AND LISTENING COMPREHENSION

The importance of metacognition in L2 academic learning was stressed previously (cf. §

3.2.3). Baker & Brown (1984:355) point out that there is a relationship between metacognitive skills and effective reading and listening comprehension. These authors (1984:5) claim that there are three types of metacognitive skills involved in reading for meaning (comprehension) and reading for remembering (studying). These are metacognitive awareness, self-regulatory mechanisms, (i.e. monitoring which is similar to self-management strategies), and using compensatory (i.e. fix-up) strategies. Despite their differences in modality, reading and listening comprehension are dependent on similar cognitive mechanisms (cf. § 2.2.3) (Stothard 1994; Pretorius 1996). It can therefore be assumed that the three kinds of metacognitive skills previously mentioned and which will now be discussed, are applicable to both reading and listening comprehension.

3.4.1 Metacognitive awareness with respect to reading and listening

Many L1 and L2 students often complain that although they spend several hours studying, they do not receive the grade they think they deserve (McWhorter 1995:291). This is because they are not adept at cognitive self-knowledge or self-appraisal. For example, students often think they are ready for a test before they have retained the necessary information. According to Paris & Winograd (1990:15), students can improve their learning by becoming aware of their own thinking as they read, write and solve problems. As stated earlier, awareness of how one learns is essential to effective learning. According to Flavell (1979:907), metacognitive knowledge relates to knowledge or beliefs about which factors act and interact in what ways to affect the course and outcome of cognitive enterprises. Flavell's (1979:907) view that there are three major categories of these factors namely, person, task and strategy is substantiated by Baker & Brown (1984:370), who state that the L2 student requires knowledge of himself, the task and text in order to succeed in studying.

When related to listening and reading, metacognitive awareness refers to listeners' and readers' awareness of their thinking whilst comprehending. When readers become aware of their own activities while reading they can employ that awareness to regulate what they are doing (Baker & Brown 1984; McLain 1991:169). According to Forrest-Pressley & Waller (1984:6), when learners know about their cognitions they are "consciously aware of the processes and can tell about them in some way". Lavine (1990 in Oxford *et al.* 1990:204)

found that when students became aware of metacognitive strategies for listening comprehension (e.g. the purpose of listening), it not only motivated students but their attitudes changed and they accepted responsibility for their own learning. Research undertaken by Forrest-Pressley & Waller (1980 in Garner 1987:36) reveals that there is a relationship between students' "metacognitive knowledge and their global reading achievement". At the same time, metacognitive awareness relates to readers' knowledge about their own cognitive resources and an evaluation of the reading task to be accomplished (McLain 1991:170). In other words, skilled readers realize what they know and what they do not know (Brown 1980). In contrast, poor readers are "deficient in metacognitive awareness" (Baker & Brown 1984:365). L2 tertiary students often test their level of comprehension and retention and readiness for a test by summarising the material they have read (Baker & Brown 1984:373). Brown & Day (1983) found that students performed extremely well after they had been made aware of and taught the rules of summarisation and reading for the main idea. LB

Three aspects of metacognitive knowledge already referred to, namely, declarative, procedural and conditional knowledge are also involved in reading (cf. Chapter 1 and § 3.1.4.1 for further discussion of these aspects). These three aspects will now be examined again with regard to reading/listening.

3.4.1.1 Declarative knowledge with respect to reading and listening

Garner's (1987:36) review on reading achievement reveals that poor or beginner readers at all ages have metacognitive deficiencies in the declarative knowledge category. Declarative knowledge as pointed out earlier (cf. § 3.1.4.1.1) refers to knowledge *that*. For instance, skilled readers and listeners know that two aspects of study comprehension are organizing the information (into main ideas and supporting ideas) and summarising the material. This awareness might be partially due to the fact that their procedural and conditional knowledge regarding reading are adequate.

3.4.1.2 Procedural knowledge with respect to reading and listening

Knowing *how* (Anderson 1980:223) to read or listen for the main idea is procedural

knowledge. This knowledge is often unconscious in good readers and listeners. For example, successful students may correctly identify the main idea, but cannot always state specifically how they know that. Marzano (1991:420) points out that procedural knowledge includes process knowledge, for instance, knowing the steps of how to read for the main idea. It also includes "conditional knowledge", that is, knowing when the process should be employed. Garner (1987:36) claims that less skilled readers also seem to have metacognitive deficiencies in the procedural knowledge category. With respect to listening and note-taking, procedural knowledge might include knowledge such as knowing that one cannot take down every word but should listen for main ideas and evaluate the importance of details in relation to main ideas. It might also include listening carefully for cues such as the lecturer's opening remarks in order to establish whether he is connecting the present lecture to the previous one and to establish the organization of the lecture (McWhorter 1995:268).

3.4.1.3 Conditional knowledge with respect to reading and listening

The successful L2 learner has knowledge of *when* to apply specific reading strategies such as rereading, skim reading, paraphrasing (Forrest-Pressley & Waller 1984), identifying the main idea or finding the most important ideas in order to write a summary. The successful L2 learner also knows when he has to apply specific listening strategies such as concentrating or paying attention to changes in the lecturer's voice (e.g. pitch or tone) or in the rate of speech (e.g. the lecturer slows down to discuss an important concept). In addition, he has knowledge of why a certain strategy is effective.

3.4.2 Metacognitive self-regulation/monitoring with respect to reading and listening

Often L1 or L2 students study ineffectually in preparation for an exam. For instance, they may study in an unplanned and hurried manner which decreases their chances of passing an exam (McWhorter 1995:291). It is important for L2 students to manage their own learning in an effective way.

Self-management of learning is reflected in the ability of students to use a variety of learning strategies to monitor/regulate their learning, reading and listening comprehension. In other words, self-management concerns the L2 student's ability to use self-regulatory mechanisms

to ensure the successful completion of an academic task. A study undertaken by Day (1980 in Campione 1987:133) compared lower ability students to higher ability students in terms of their employment of self-management strategies for summarising and identifying the main idea. The results revealed that lower ability students employed fewer self-management strategies. The pedagogical implication that follows from this is that they needed explicit instruction in the rules for summarising, capturing the main idea and deleting trivia and redundant words, whereas higher ability students did not.

Self-regulated learning enables students to become independent and flexible learners. Students who experience difficulty with learning or reading need to be shown how to manage their own learning (Paris & Winograd 1990:42). The following self-regulatory mechanisms are employed by active and reflective L2 learners whilst problem-solving or regulating their learning: planning their next move, predicting outcomes, guessing intelligently by means of clues such as knowledge of topic, context or situation, testing and revising, and evaluating the effectiveness of ongoing activities and strategies for learning.

When applied to the L2 tertiary learning situation, self-regulation of learning would include the ability of L2 learners to make good plans before tackling a task; to employ a variety of strategies; to make adjustments as they work; to evaluate, monitor and revise ongoing performance; to engage in self-questioning; to check the outcomes of their performance and to remediate comprehension difficulties that may arise. In other words, self-regulation involves deciding how well progress is being made toward the accomplishment of some cognitive goal (Baker & Brown 1984:354; Hallahan & Kauffman 1986:12; Spires 1990:152). In addition, self-regulated learning also involves choosing tasks in which to engage and the degree of help to solicit. Self-regulation of listening (i.e. comprehension) involves guessing content, predicting meaning from contextual clues, assessing the accuracy of predictions and making adjustments if proved incorrect (Oxford 1993:209).

With respect to reading, McLain (1991:170) defines self-regulatory mechanisms, also known as cognitive monitoring, as "a person's ability to actively regulate what they know during reading (comprehension monitoring) and problem solving". Monitoring of cognition refers to recognising problems with information in the reading text or the inability to achieve the

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required goal. An example of this would be an awareness of non-comprehension of the text, inconsistencies in the text or the ability to recognise an illogical summary (Grabe 1991:382). Self-regulatory strategies used by the reader include planning ahead, testing self-comprehension, evaluating the effectiveness of strategies being employed and revising strategies (Baker & Brown 1984; Grabe 1991). However, students often assume that comprehension or understanding occurs following reading and they thus do not feel the need to monitor their knowledge or the outcome of their learning. Research undertaken by Baker & Brown (1984:371) found that less proficient students do not spontaneously monitor their understanding and mastery of prose material but are capable of doing so with relevant training. Brown (1980 in Spiro *et al.* 1980:451) attributes the learner's failure to comprehend (e.g. listening and reading text) to ineffective monitoring strategies. This is confirmed by Flavell (1987:24) who states that reading and critical listening requires "considerable practice and skill in cognitive monitoring".

3.4.3 Metacognitive compensatory strategies with respect to reading and listening

Pearson & Fielding (1991:837) state that monitoring "one's own comprehension involves using procedures to check on whether comprehension is occurring" and to use compensatory strategies (also known as fix-up strategies) when it is not. Good readers are aware of and employ compensatory strategies whilst reading (Baker & Brown 1984). This entails "keeping track of the success or failure with which their comprehension is proceeding" and taking measures to deal with any difficulties which arise (Baker & Brown 1984; McLain 1991:170). Good readers who engage in metacognition spontaneously employ compensatory strategies when they experience problems with comprehension during the actual reading process. In contrast, poor readers have misconceptions about the goals, tasks and strategies of reading. Because they often tend to be unaware of their comprehension of the text, they rarely use compensatory strategies (McLain 1991:170). According to the author (*ibid* 1991), in order to create skilled, independent readers who take responsibility for their learning, students should be taught compensatory strategies which they can employ when comprehension fails and the text does not make sense. Examples of fix-up strategies that teachers can teach students include summarising the main content, formulating potential questions, clarifying difficult parts of the text and predicting future content (Pearson & Dole 1987 in McLain

1991:170). Another useful technique is to teach students to monitor their comprehension through self-instruction training i.e. teaching students to "internalize statements about the routines to follow" and "to detect inconsistencies while reading." (Pearson & Fielding 1991:838). Research undertaken by McNeil (1984 in McLain 1991:170) found a self-instruction and monitoring technique that proved to be an effective way of teaching students reading comprehension strategies. This involved encouraging students to orally define a problem, focus their attention and to form a plan of action. In addition, the students worked together and verbally exchanged ideas in a group context.

3.5 RESEARCH FINDINGS ABOUT METACOGNITIVE INSTRUCTION

As stated earlier, metacognition refers to knowledge about cognitive states and abilities that can be shared among people and includes the affective and motivational characteristics of thinking (Paris & Winograd 1990:21). Several research findings reveal that teaching students metacognitive strategies promotes academic learning (Brown 1980; Brown *et al.* 1983; Baker & Brown 1984; Garner 1987; Spires 1990; Fan 1993). Paris & Winograd (1990) also emphasize the need for self-regulated, independent and flexible learning, as it is of vital importance in the learning situation. Moreover, the latter authors (1990) stress that less-skilled learners in particular need to be empowered to manage their own learning. Metacognitive instruction plays a powerful role in classroom instruction and is especially useful in initial teaching. Describing a new skill to be learned and the steps required to master it, requires a tutor to dissect the task at hand and present it to a novice in a meaningful way. Whether the instruction is provided by an expert, teacher or peer, metacognitive understanding of the task at hand can facilitate instruction. The situation described is important for classroom learning as it encourages "metacognitive exchanges" among teachers and students (Paris & Winograd 1990:22). Spires (1990:155) points out that it is necessary for the teacher to use or devise a metacognitive instruction approach that will assist students to develop the necessary commitment to the learning or study task, so that they can employ the strategy independently.

Flavell (1987:26) points out that teachers sometimes model, demonstrate, teach and encourage metacognitive activity. Research undertaken by Schallet & Kleiman (1979 in

Flavell 1987:26) indicate that teachers provide the type of guidance not provided in textbooks such as assisting students to regulate and monitor their own cognition. Paris & Winograd (1990) are of the opinion that teachers who employ metacognitive teaching approaches such as direct explanation, scaffolded instruction, cognitive coaching and cooperative learning can enhance students' metacognition about learning. It would thus seem as if metacognition does foster effective L2 academic learning and instruction. In the following section, four metacognitive approaches to instruction in the classroom which emphasize cognitive skills, social exchange and motivational encouragement, will be discussed. These are direct explanation, scaffolded instruction, cognitive coaching and cooperative learning.

3.5.1 Direct explanation

Rosenshine (1983 in Idol *et al.* 1991:72) defines *direct instruction* in terms of reading and emphasizes "reviews, checks for understanding and reteaching if necessary, teacher explanations, guided practice, and independent practice". Recently, direct instruction has been redefined to include explicit strategy instruction (e.g. explanations of *what* the strategy is and *when, where, and how* to use it, as well as *why* it should be used), transferring responsibility of learning to the student, focusing on constructing meaning and problem-solving, and both cognitive and metacognitive instruction (Idol *et al.* 1991:72). These aspects of direct explanation are important in the present study.

Several studies have investigated the effect of using direct instruction to teach students the rules of summarising (Brown *et al.* 1983; Brown & Day 1983; Baker & Brown 1984; Casazza 1993) and found that it increases comprehension of text. Rosenshine & Stevens (1984 in Duffelmeyer & Baum 1987:54) found that using a direct instruction method is an effective way in which to teach reading comprehension skills such as identifying main and supporting ideas. Research undertaken by Rosenshine & Steven (1984 in Duffelmeyer & Baum 1987:54) also indicates that students show higher academic achievement when teachers repeatedly demonstrate new reading material by giving instructions and explanations. This should be followed by guided practice allowing for student questions, checking for understanding and feedback.

Winograd & Hare (1988 in Paris & Winograd 1990:32-3) reviewed direct instruction research with respect to assisting student to become more proficient in their use of reading comprehension strategies. The authors (1990) found that researchers focused on the following five key features of direct explanation:

- *What the strategy is.* This is explained by means of a definition or description of the strategy.
- *Why the strategy should be learned.* In other words, the purpose and potential benefits of the strategy are taught.
- *How to use the strategy.* Teachers explain each step of the strategy as clearly as possible. When the individual steps are hard to explain, as in getting the main idea, teachers use think-aloud and other instructional aids.
- *When and where the strategy is to be employed.* Teachers explain to students the appropriate circumstances under which strategies should be used.
- *How to evaluate the use of the strategy.* Students are told how to tell whether employing the strategy has been helpful and what to do if it has not been helpful.

Direct instruction has the following strengths:

- It structures learning so that teachers and students can engage in the social exchange of shared knowledge (Paris & Winograd 1990).
- With external assistance (i.e. the teacher), it enables learners to progress from their present state of knowledge to a more advanced one where they can function independently (Casazza 1993:203).
- Direct explanation of academic tasks and relevant strategies assists students with difficult tasks and equips them with useful tactics for problem-solving.
- Direct explanation forces teachers to understand the cognitive demands of the task and to do more than mention objectives and distribute assignments.
- Direct instruction can be given to large groups or whole classes and is, therefore, an economical way of teaching (Paris & Winograd 1990:34).
- Research has revealed that teaching students explicit strategies by means of direct instruction leads to effective teaching (Idol *et al.* 1991:72).

However, direct instruction also has the following shortcomings:

- It might create problems for teachers who are used to traditional classroom management where students are expected to work silently at their seats.
- Some cultures discourage the correction of one's peers. Teachers would, therefore, need to find a way in which to make deliberate mistakes in order to elicit correction and subsequent discussion (Secada 1991:322).

3.5.2 Scaffolded instruction

Collins, Brown & Newman (in press in Idol *et al.* 1991:82) define *scaffolded instruction* as "the support the teacher gives the students by carrying out some part of the task initially until they can progress without these supports". These supports may be cues such as providing questions, teacher explanations, changing misconceptions and coaching. As students become independent learners, the supports are gradually removed. Research has revealed that scaffolded instruction is an effective approach compared to other more traditional forms of instruction. An important feature in scaffolded instruction is the "prominent role of dialogue between teacher and student" (Paris & Winograd 1990:34- 37).

Reciprocal teaching is an example of scaffolded instruction as it focuses on interactive communication (e.g. teacher and student dialogues). By means of dialogues teachers can guide and support L2 students to achieve goals and to finally work unassisted on their own (Paris & Winograd 1990:35). Spires (1990:152) asserts that reciprocal teaching is an instructional method which shows how metacognitive strategies can be taught in conjunction with reading processes. It is especially effective when it focuses on comprehension monitoring which involves awareness of ongoing comprehension processes and detection of impediments to successful comprehension. Paris & Winograd (1990:35) cite research by Palinscar & Brown (1984) which concentrated on four cognitive activities, namely summarisation, questioning, clarifying and prediction in order to monitor reading comprehension. According to Spires (1990:152), students in the Palinscar & Brown (1984) reciprocal teaching study received direct instruction. Initially the teacher modelled the activities, and the students repeatedly practised the strategies in the training sessions. Next,

a student would assume the role of teacher and repeat the procedure on a different segment of text. The pre-test results indicated an average of 20% correct answers. After reciprocal teaching intervention, test averages improved and 80-90% of the answers were correct. According to Paris & Winograd (1990:36), reciprocal teaching contributes to students' learning because by exchanging dialogues and roles, a more explicit description of reading strategies is fostered. For instance, how to employ reading strategies, when they are useful and why students should use them.

Successful strategies which form part of scaffolded instruction in teaching reading, writing and problem-solving in particular, include the following:

- modelling, which requires that the lecturer provides an example of the appropriate cognitive behaviour. For instance, the lecturer 'thinks aloud' about how to apply the strategy or skill, so that students can see the entire process (Lerner 1985);
- coaching, which involves diagnosing problems, prescribing correctives, and providing feedback;
- inquiry;
- articulation (getting students to articulate their knowledge and thinking processes);
- reflection about the process of thinking; and
- exploration (i.e. pushing students to extend their learning) (Collins, Brown & Newman in press in Idol *et al.* 1991:82).

Scaffolded instruction has the following strengths:

- It is a way of sharing and developing student's metacognitive knowledge.
- Interactive dialogues between teachers and students offer a natural context for exploring beliefs about learning.
- It enhances social relationships among teachers and students and provides additional motivation for learning (Paris & Winograd 1990:37).

Scaffolded dialogue between teachers and students is tempered by the realities of classroom life. The following factors play a decisive role in scaffolded instruction:

- From the point of view of students, the power inherent in the teacher role limits the possibility for reciprocity in teacher-student talk.
- Teachers generally dominate instructional talk. They also control the topic and access to the floor.
- Lack of time, large classes, materials or space may impede intimate student-teacher communication (Florio-Ruane 1991:369; 383).

3.5.3 Cognitive coaching

Cognitive coaching includes direct explanation, mutual dialogues, modelling and motivational encouragement. Research undertaken by Brown, Campione & Day (1981) with respect to teaching college students summarising strategies and reading for the main idea revealed that they benefitted from this type of instruction.

Paris (1986 in Paris & Winograd 1990:38) identifies the following advantages of cognitive coaching which contribute to the effectiveness of metacognitive instruction:

- Teachers and students have common goals in coaching situations that provide for cooperation and mutual striving.
- Coaching involves ongoing assessment of the levels of students' performance so that task difficulty and expectations can be adjusted to challenging levels.
- Coaching involves mutual regulation.
- Students take responsibility for self-regulated learning (Paris & Winograd 1990: 37-39).

Amongst others, the shortcomings of cognitive coaching are the following:

- Students who have an introverted social orientation might find it difficult initially to share their thoughts and feelings about thinking processes in learning.
- Teachers who have authoritarian and critical attitudes might stifle student enthusiasm and interaction (Paris & Winograd 1990).

3.5.4 Cooperative learning

Cooperative learning facilitates an important aspect of metacognition, namely social exchange and shared knowledge. This is because in cooperative learning, students "usually work together to complete tasks, whereas students in other settings work at their seats or receive instruction in large groups in which most interaction occurs between teacher and student" (Paris & Winograd 1990:39). Cooperative learning has shown promise for the development of higher order thinking among children from diverse social economic situations and ethnic background (Secada 1991:321).

The strengths of cooperative learning are:

- Disagreements among group members force individuals to seek new information or to try and understand old information from a new perspective.
- Students in cooperative learning situations appear to be more motivated and less anxious.
- Cooperative learning provides an arena for teachers and students to discuss the nature of learning and academic tasks.
- In cooperative settings, students' judgements, beliefs and choices are often negotiated publicly and are at least open to self-examination.
- Cooperative learning is more effective than studying materials alone.
- Learning is student-centred instead of teacher-directed.
- Teachers provide information or structure opportunities for learning. This implies that they must adapt the curriculum to the developmental levels of their students.

The following are shortcomings of cooperative learning:

- Cooperative learning is more beneficial to students who score high in cognitive ability and have an extroverted social orientation.
- Although low achievers do improve under cooperative group arrangements, higher achievers perform better.
- Care must be taken in the formation of cooperative groups. This is because dominating students may increase their status at the expense of others.

- If rewards are offered for performance of the group as a whole, care should be taken to ensure that each student learns all the materials and not only the particular section for which he/she is responsible (Secada 1991:323).

All four of the above instructional approaches enhance effective teaching and self-regulated learning. Despite the fact that there is an overlap between these four approaches, Paris & Winograd (1990:42) caution that teachers or researchers must pay careful attention to the conditional applicability of the various instructional approaches, as it is unreasonable to assume that one instructional technique (e.g. direct explanation or scaffolded instruction) will be equally effective for all kinds of tasks and texts, and for all types of students.

Another problem which is pertinent in our SA teaching situation is the fact that many of the teachers themselves speak English imperfectly and are poor readers and writers. Many of them have also not been exposed to good and inspiring role models of alternative teaching styles. As a result, they lack confidence and resist new teaching approaches. Although these problems are obviously not weaknesses of the four instructional approaches, they do create dilemmas when it comes to classroom implementation of approaches such as the four discussed (cf. § 3.5.1 to 3.5.4).

3.6 RESEARCH ON L2 LEARNING STRATEGIES

The concept *learning strategy* was briefly discussed earlier (cf. § 3.1.4.4). At this stage, it is necessary to discuss research findings on L2 learning strategies. Oxford (1992:180) states that attempts to teach L2 students to use learning strategies have produced successful results. When studying, it is important for the L2 learner to select the right reading and learning strategy (McWhorter 1995:96), as studying text materials differs from other forms of reading in that it is criterion orientated (Anderson 1980:483; Anderson & Armbruster 1984:657). Because students process text with the expectation of learning something specific from it, the explicitness of the criteria affects how students study, the strategies they employ and how much they learn. For example, a student who has copies of previously used tests pertaining to a chapter of text would probably employ a different study strategy from one who is told

to study a chapter of text in preparation for a class discussion. To be adequately prepared for the criterion task or event, the preferred strategy for the first student may be to read the text with the explicit purpose of finding answers to the test questions, while the second student would probably study the chapter to determine the author's main ideas and how they relate to one another. Studying has a self-directed motivation feature. Although the process must be initiated and maintained by the student just as in other types of reading, the study of text does not have as many self-motivating, interesting characteristics as recreational reading. Anderson (1980:483-484) claims that it is important to uncover techniques that motivate students to study.

Unfortunately, not all L2 strategy training studies have been uniformly successful or conclusive. Bialystok (1985:256) cites Brown *et al's.* (1983) study which found that teaching explicit strategies for reading comprehension that are successfully used by good readers does not in general improve the comprehension of poor readers trained in the use of these strategies. Despite negative findings, Baker & Brown (1984:375) advocate that L2 students should receive instruction in rules and strategies for reading and summarising.

Oxford's (1992:181) review of research in which strategy training appears to have been unsuccessful frequently reveals methodological problems such as the following: too short a period for L2 strategy training, the training task is too easy or too difficult, lack of attention to affective and social strategies, lack of integration of the training into normal class work leading to perceived irrelevance of the training, and inadequate pre-training assessment of learners' current strategy use, cultural background, learning styles and needs. Although these factors influence the choice of strategies, the author of this dissertation is in favour of training L2 students in the use of learning strategies. The reason for this is that research findings have shown that L2 strategy instruction can also have a powerful effect on learning (Oxford 1992:180).

Despite strategy classification conflicts, research on language learning strategy reveals the following types: affective, social, metacognitive and cognitive strategies, which will now be discussed.

3.6.1 Affective and social strategies

Strategy research has studied the emotional and social side of learning. Affective and social strategies appear to be similar to what Flavell (1981) terms "metacognitive experiences". This is because they refer to conscious experiences, ideas, thoughts, feelings or sensations that learners have towards learning tasks. Oxford (1992:177) maintains that affective and social strategies assist good L2 students to control their emotional states. Furthermore, these strategies keep students motivated and on-task. Students who use affective and social strategies are also confident and motivated to request help when required.

Affective strategies can be positive or negative. Positive emotions and attitudes include taking risks wisely, feeling confident, having positive dispositions, beliefs or opinions about learning and taking responsibility for learning. Students' attitudes are strong predictors of motivation and positive self-esteem, especially in L2 learning. Negative feelings can stunt academic progress whereas positive emotions and attitudes can make learning more effective and enjoyable.

Social strategies include sharing behaviour (e.g. taking turns) and cooperating with peers instead of competing, as well as feeling confident to ask questions in class in order to seek clarification or to verify the accuracy of an answer (Oxford 1990; Paris & Winograd 1990; Oxford 1992:177). For the purpose of the present study emphasis is placed on metacognitive and cognitive strategies rather than affective and social strategies.

3.6.2 Metacognitive strategies

Oxford (1990:136) identified the following types of metacognitive strategies:

- Centring one's learning, which includes focusing attention and defining the problem.
- Arranging and planning one's learning, which involves defining the purpose of the learning task (e.g. to identify the main idea in a passage and/or to summarise a passage), planning and self-regulation (e.g. "Let me think ..") and practising (e.g. finding the main idea and doing a summary by means of the rules or steps).

- Evaluating one's learning which requires self-testing/evaluation, self-monitoring, checking success and self-correction when failures in comprehension are detected.

Bialystok (1981 in Oxford & Crookall 1989:409) used a questionnaire to assess the strategies (i.e. practising of formal rules, monitoring) which L2 students found meaningful. Results show that monitoring (i.e. noting errors), a metacognitive strategy, is primarily beneficial in writing, secondary to reading and oral tasks and only minimally relevant to listening tasks. O'Malley *et al.* (1985) conducted a descriptive study whereby teachers and students were interviewed in order to identify which strategies L2 learners use to facilitate learning in English. The following metacognitive learning strategies were identified: planning (e.g. self management, directed and selected attention), monitoring and evaluation. The results revealed that of the students, 30% of 638 students employed metacognitive strategies such as thinking about their learning style, planning for language learning opportunities, monitoring, self-evaluation and selective attention. According to O'Malley *et al.* (1985:568), these were good strategies to use as students were reflecting on and analysing the process of learning.

Metacognitive strategy training has been effective in certain skill areas. A metacognitive training programme undertaken by Paris & Jacobs (1984 in Spires 1990:153) focused on teaching students planning, regulation and evaluation strategies. The students were told when and why they should use these strategies. Results indicated that metacognitive instruction significantly increased students' reading awareness and their use of strategies. This implies that students who are more aware of reading strategies score higher on tests of reading comprehension. It also shows that informative instruction in the classroom can improve both awareness and reading skills.

Thompson & Taymans (1994:17) cite the Baker & Brown (1984) study as evidence that metacognitive strategies can improve the reading ability of students. Research undertaken by Adams-Hodge (1991:862) on the effect of metacognitive training of 'at-risk' students to monitor their comprehension and to employ various strategies to improve their reading comprehension and learning, revealed that there was a significant improvement in their reading comprehension when compared with students receiving traditional methods of instruction. With respect to reading comprehension, Baker & Brown (1984) suggest training

students to monitor their comprehension by getting them to ask themselves questions about their degree of understanding of a comprehension text. Students should also be made aware of the active nature of reading and the importance of employing self-regulation strategies. Similarly, the meta-analysis of metacognitive strategies conducted by Halle, Child & Walberg (1988 in Spires 1990:154) confirms that metacognitive training in self-questioning is very effective as a monitoring and regulating strategy.

Lundberg (1991:159) claims that the teacher has a critical role to play in developing students' metacognitive skills, especially with regard to reading. More specifically, the teacher should act as a model and encourage learners' awareness and knowledge of their own learning processes. Spires (1990:152) cites Palincsar & Brown's (1984) study, which addressed the effect of metacognitive awareness and monitoring on reading comprehension. The researchers focused on four cognitive activities, viz: summarisation, questioning, clarifying and prediction. The intervention programme took the following form: the teacher used direct instruction, modelled the activities, and students practised the strategies in the training sessions. Then a student modelled the activity instead of the teacher, and repeated the procedure on a another text. After the intervention programme, there was a significant improvement in students' performance on daily comprehension tasks.

Garner's (1985:549) research on text summarisation deficiencies among students underlines the importance of student awareness of the aspects of successful summarisation, namely the main idea or topic sentence, succinctness and integration. In a similar vein, Brown, Campione & Day's study (1981:18) reveals that inefficient application of rules and strategies and impoverished background knowledge impede effective studying.

Kirkland & Saunders (1991:105) claim that L2 students can be empowered to perform the metacognitive skills required for summarisation. This is substantiated by Brown & Day (1983:1), who maintain that the ability to read and listen for the main idea and to summarise are valuable study skills. These skills entail comprehension of and attention to important detail at the expense of trivia. These authors (1983:381) suggest that students should be instructed to enhance their own knowledge by making them aware of available cognitive strategies such as the rules for summarisation. Students also need explicit instruction about where, when and how to use a strategy in a variety of appropriate domains. This is

substantiated by Garner's (1987:36) study which reveals that students of all ages experience metacognitive knowledge deficiencies. To remedy this situation, L2 students would, therefore, benefit from being taught declarative, conditional and procedural information on reading comprehension, the task and strategy. Furthermore, students require training and practice in the metacognitive strategies of self-awareness, self-regulation and comprehension monitoring as it results in improvement in study areas such as reading comprehension and summarisation.

To improve note-taking, Aaronson (1975) suggests that students need practice in developing the art of listening and understanding ideas. Otto (1979:320) found that listening dictation exercises increase proficiency in individual L2 note-taking. This is because a dictation exercise enables students to write down what the lecturer says (Kühn & Meiring 1984:31). Williams (1984) advocates that listening and note-taking skills can be taught at college level and should include listening for the main idea and listening for supporting details. Listening comprehension exercises for L2 students may include listening to a text that is read aloud and writing it down. O'Malley *et al.* (1985:566) undertook a study to evaluate the effects of training L2 students metacognitive strategies for a listening comprehension task. The results showed that beginning and intermediate students used planning (e.g. self-management and advance preparation), self-monitoring and self-evaluation strategies. Beginning-level students depended more on planning strategies such as selective attention (e.g. listening for important words or ideas) when compared to intermediate students.

Self-report studies reveal that L2 learners or readers often have knowledge "that" a metacognitive strategy is effective but do not employ it (Baker & Brown 1984:377). Research has revealed that the strategy use of both good and poor readers decreases with passage difficulty (Baker & Brown 1984:365). McLain (1991:170) points out that poor readers have little awareness of, and have misconceptions about, the goals, tasks and strategies of reading. They also rarely employ fix-up strategies. In contrast, good readers use metacognitive 'compensatory' or 'fix-up' strategies (cf. § 3.4.3) when they experience problems with comprehension during the actual reading process (Baker & Brown 1984:355; McLain 1991). This is substantiated by Weinstein & Underwood (1985:241), who suggest that learners should use metacognitive strategies to detect discrepancies between what they know and what they do not know and to monitor and to direct their acquisition of new information. Spires

(1990:152) is of the opinion that metacognitive strategies can be taught to improve comprehension, critical reading and study skills. Moreover, the author (1990:152) advocates that the following metacognitive skills can be consciously invoked by the reader to aid in focusing on the important content in monitoring comprehension:

- consciously intending to control the reading act;
- establishing the goal of the reading act;
- focusing on metacognitive knowledge;
- planning the regulation and monitoring of the reading act; and
- periodically assessing reading success.

McLain (1991:170) also maintains that there is a need to teach students compensatory strategies which they can employ when comprehension fails and the text does not make sense. These metacognitive strategies are predicting, self-monitoring, self-questioning and study skills. According to Garner (1987:50), summarisation (for instance, studying the rules for summarisation and identifying the main idea) is a strategy which is necessary in academic settings. Metacognitive strategies can be taught by means of metacognitive instructional approaches (cf. § 3.5).

3.6.3 Cognitive strategies

Cognitive strategies/actions are related to activities that learners engage in to "achieve the goals of an enterprise" (Flavell 1981:411). For example, a Sociopedagogics student may try to memorize a definition of 'Child abuse' for the next day's test or he may try to improve an old learning strategy. According to Flavell (1979 in Garner 1987:20), "cognitive strategies are invoked to make cognitive progress, and metacognitive strategies monitor it".

Oxford (1990:17-47) distinguishes between the following types of cognitive strategies: Practising an activity (repeating or doing something over and over); summarisation, skimming to get main ideas or scanning to find specific details of interest; and reasoning deductively, that is, using the general rules for reading for the main idea and summarising and applying them to examples and new situations (e.g. listening comprehension). In order to aid reading and listening comprehension further, learners need to use strategies such as

note-taking and summarisation.

The results of a questionnaire study undertaken by Bialystok (1981) reveal that a cognitive strategy, viz: practice of rules, was responsible for achievement on academic tasks and was an effective technique for older students. O'Malley *et al's.* (1985:566) study found that 53% of L2 students employed cognitive strategies such as repetition and note-taking whereas 17% used socioaffective strategies such as cooperation (i.e. working together with peers to obtain feedback or to pool information) and asking questions for clarification. In most cases students reported using a combination of strategies for a single language task or activity (Chamot 1987:78).

3.6.4 The effect of teaching a combination of strategies

Oxford (1992:177) examined the strategy research findings and concluded that successful learners employ metacognitive strategies like organizing, planning and evaluating their learning. In addition, competent learners use cognitive strategies such as analysing, reasoning, transferring information, taking notes and summarising. They also use compensation strategies such as guessing. In a study undertaken by O'Malley *et al.* (1985:570) two groups were trained. One treatment group received training in a combination of metacognitive, cognitive and socioaffective strategies. The other treatment group received instruction in cognitive and socioaffective strategies. The untrained control group worked on tasks as they normally did. The results showed that both treatment groups who used a combination of strategies (i.e. metacognitive, cognitive and socioaffective or cognitive and socioaffective strategies) performed better than the control group (Chamot 1987:78; Oxford & Crookall 1989:412).

To conclude, students become good at trouble-shooting and avoiding problems when they employ a combination of metacognitive strategies such as planning, evaluating, regulating (i.e. cognitive monitoring also known as self-management strategies) and metacognitive compensatory strategies (cf. § 3.4.3), as well as cognitive strategies whilst learning and studying. This is because these learning strategies assist L2 students to interpret and adapt to learning experience (Paris & Winograd 1990:18; McLain 1991).

3.7 THE BRIDGING AND TRANSFER OF SKILLS

According to Feuerstein, Rand, Hoffman, Egozi & Shachar-Segev (1991:151) insightful learning leads to generalization and transfer. However, the act of learning something new does not automatically transfer to another situation. When rules, principles, strategies and habits learned in one area are transferred to another unrelated area from the initial task it is known as bridging. Often transfer fails in learning situations because it is assumed that if students are given a set of principles they will apply them spontaneously, by themselves. In such cases, students are unsuccessful because they failed to gain insight and transfer could consequently not occur. Kennedy, Fisher & Ennis (1991:17) define transfer across domains as "transfer from one task or situation to another" within a specific subject area (for instance, reading for the main idea to listening to the main idea). Perkins & Salomin (1987 in Greenberg 1990:34) claim that there are five conditions necessary for transfer to new situations to take place, namely:

- when learners are shown how problems resemble each other;
- when learners' attention is directed to the underlying goal structure of comparable problems;
- when the learners are familiar with the problem domains;
- when examples are accompanied with rules; particularly when the latter are formulated by the learners themselves; and
- when learning takes place in a social context.

The lecturer/mediator plays an important role as she has to interpose herself between the learners and the tasks and to assist in the analysis of the processes involved in solving a particular task. The extent to which a student develops skills and knowledge that enhances general transfer is influenced by the kind of principles and bridging exercises introduced by the lecturer or teacher (Feuerstein *et al.* 1985). Instruction which stresses metacognitive skills such as setting goals, planning and self-monitoring shows evidence of achieving transfer (Kennedy *et al.* 1991:17). Although transfer of critical thinking and metacognitive skills is desirable and teaching approaches should be designed to encourage transfer, this is a subject of much debate. One reason for this is that measuring transfer is a difficult, if not impossible, task (cf. § 3.1.6 for other problems associated with metacognition). A study

undertaken by Osborn (1939 in Kennedy *et al.* 1991:17) revealed that even after training, an experimental group who were taught critical thinking skills (i.e. a direct study on the techniques of evaluating a text) did not differ from a control group with respect to transferring knowledge learned in one context to another. A shortcoming of Kennedy *et al.*'s (1991:17) discussion of Osborn's (1939) study is that no mention is made of whether the experimental group differed from the control group with regard to developing critical skills in the first context (before transfer to another context was assessed).

3.8 WAYS OF IMPROVING THE METACOGNITIVE PROBLEMS PERTAINING TO L2 READING AND LISTENING COMPREHENSION

From the previous discussion it would appear that L2 tertiary students would benefit from training and practice in the use of -

- task-specific strategies (skills training);
- metacognitive strategies for reading for the main idea and summarising;
- strategies to promote self-regulated learning and self-instruction;
- cognitive strategies for reading such as note-taking, summarisation and practice of these rules;
- metacognitive strategies for listening such as paying attention, arranging, planning and evaluating their learning;
- cognitive strategies for listening comprehension such as note-taking, which involves practice and repetition of rules;
- information concerning the significance and outcome of these activities and their range of utility (awareness training); and
- instruction in the orchestration, overseeing and monitoring of these skills (self-regulation training).

More specifically, students should be explicitly instructed where, when and how to use a strategy (metacognitive knowledge) in a variety of appropriate domains in order to enable transfer to occur in other domains. Transfer might include reading for comprehension (i.e. concentrating on the main idea), summarisation and bridging to listening comprehension.

3.9 CONCLUSION

This chapter was concerned with metacognition and its role in L2 tertiary study. As mentioned in Chapters 1 and 2, the L2 students in the present research study experience problems with reading and listening comprehension. Because all the researchers advocate explicit instruction in these problem areas, I decided to examine whether a short-term intervention programme involving explicit instruction in main idea identification, summarising and listening for note-taking by means of an eclectic approach (e.g. combined metacognitive and cognitive), would make a difference to L2 students' reading and listening skills. Since metacognitive knowledge empowers students and enables them to take greater control over their intellectual activities, I decided to link the metacognitive issue with reading and listening problems. I thus designed a programme (cf. Chapter 4) that I hoped would enhance not only their ability to identify main ideas, summarise and listening comprehension by means of note-taking but would also enhance their awareness of the utility and efficacy of strategies for main idea identification, summarisation and listening comprehension. Furthermore, I hoped that findings from the present research would provide useful feedback to L2 reading and listening research as well as research dealing with learning through the medium of an L2.

3.10 SUMMARY

The purpose of this chapter was to discuss the role of metacognition in L2 tertiary studying. Interest in metacognition was initiated by Flavell's (1976) study of metamemorial processes in children. Flavell (1976) wrote that metacognition refers to the individual's (e.g. the reader's or listener's) knowledge or awareness about his cognitions and the ability to regulate/monitor or control these cognitions. At this stage, researchers also became interested in children's levels of metalinguistic awareness. This aspect has been studied from the following three contexts: as part of metacognition, language and learning as well as reading and writing.

Flavell's (1981) view later changed to include interacting factors such as the person, task and strategies. More recently, Flavell (1981) has distinguished between metacognitive knowledge and experience as well as metacognitive and cognitive (learning) strategies. Newer

perspectives on metacognition which include affective factors (e.g. motivation) and shared knowledge were examined. The motivational aspects of metacognition which affect self-regulated learning are the learner's metacognitive attitudes, beliefs, judgements and decisions when confronted with a task. These aspects play a very important role in learning situations. The literature study has shown that when L2 students feel positive about their self-competence and expectations for future achievement, they have positive self esteems and are motivated to spend energy and effort on a task (Paris & Winograd 1990). Another aspect of metacognition, namely, shared knowledge, stresses the importance of social interaction in the learning situation. Knowledge is shared through dialogues between students and teachers. The following are advantages of metacognitive dialogues in the classroom situation: (a) students feel confident to express their opinions and ideas and (b) shared knowledge enables students to give feedback and ask questions.

There are problems associated with defining the concept *metacognition*. There has been disagreement in deciding whether metacognition is conscious or unconscious awareness of thinking. Another disputed issue is differentiation between the "meta" and "cognitive" aspects of metacognition. It is also difficult to measure the construct metacognition. In order to overcome this problem, researchers tend to use verbal reports from readers or listeners who reflect aloud on what they are doing whilst confronted with the learning task. The issues of inaccuracy, validity and reliability arise because of the complexity of verbal reports and students' explanations of their thinking. Despite these problems, the present study stresses the importance of metacognition in L2 thinking and learning. This is because metacognition is a factor which is conducive to learning to learn. It helps students to become consciously aware of their own learning and also enables them to become active participants in their own performance.

The concept *metacomprehension* which relates to the reader's knowledge and understanding during reading and his control over cognitive activities during reading was discussed. The concepts *cognition* (i.e. perceiving, understanding and remembering) and *metacognition* (i.e. thinking about one's perception and understanding) were defined separately to enable the reader to distinguish their differences. The literature concerning metacognition and learning was examined. The various aspects of metacognition were explained. This included metacognitive self-knowledge, self-management, motivation and shared knowledge. The

following aspects of metacognitive self-knowledge relate to the L2 learning situation, viz: declarative (i.e. knowing that), conditional (i.e. knowing when and why) and procedural (i.e. knowing how) knowledge. The three types of self-knowledge discussed are similar to Flavell & Wellman's (1977) distinction between learner, task and strategy variables. Research has revealed that weaker students experience difficulty in employing self-management strategies for learning and require explicit instruction in rules for summarising such as selecting the main idea, deleting trivia and redundant information (Day 1980 in Campione 1987). By means of an example, an attempt was made to show the interaction between metacognition, cognition and reading.

The literature study reveals that less skilled L2 readers often have metacognitive problems such as inadequate declarative, conditional and procedural metacognitive knowledge. They often have insufficient knowledge of themselves, the task and the text and require knowledge of rules for comprehension such as summarisation and reading for the main idea. In order to try and correct these metacognitive problems pertaining to reading and listening comprehension, it has been proposed that L2 students would benefit from self-regulation training and task-specific strategy training. When learning has been successful the student has gained insight and bridging or transfer to other areas may occur.

Differences between L2 students' cognitive problem-solving and learning styles, that is, their behaviour and attitude towards reading and listening comprehension as well as metacognitive problems, are thought to affect performance. The cognitive styles of L2 students can be active, passive, reflective or impulsive. Active and reflective learners actively participate in their learning and are motivated to learn. Inert, passive and impulsive learners on the other hand, often have negative beliefs about their learning and require a repertoire of useful cognitive strategies to solve the problem. Research has shown that there is a need for less skilled L2 students to be provided with cognitive skills for reading comprehension (Baker & Brown 1984; Grabe 1991).

It was established that metacognitive instruction and learning do in fact promote academic achievement. Four instruction approaches (direct explanation, scaffolded instruction, cognitive coaching and cooperative learning) which integrate the components of metacognition, such as self-knowledge, self-management, motivation and social exchanges

of shared knowledge, were discussed. An attempt was made to identify the strengths of each approach. Despite some shortcomings in all four methods, it was felt that these instructional methods further effective teaching and self-regulated student learning. Moreover, this researcher felt that L2 tertiary students would benefit from training and practice in metacognitive and cognitive strategies for reading and listening for the main idea and summarising as well as note-taking. Students would also benefit from awareness training, self-regulation and monitoring of learning and self-instruction.

CHAPTER 4

IMPROVING COMPREHENSION FOR STUDYING BY MEANS OF A METACOGNITIVE APPROACH: THE NATURE OF THE INTERVENTION PROGRAMME

4.0 INTRODUCTION

The main aim of this chapter is to explain the nature of the metacognitive intervention programme employed to improve four comprehension skills (i.e. reading for the main idea, summarising, listening, and note-taking skills) of a group of first-year SA black L2 tertiary students.

To attain this aim I shall firstly describe the factors which were taken into consideration in devising the intervention programme. Secondly, I shall relate the metacognitive strategies taught to L2 tertiary students with regard to reading for the main idea and summarising, as well as listening comprehension for note-taking (i.e. metacognitive awareness, self-regulation/monitoring or self-management and compensatory strategies). Thirdly, I shall discuss the cognitive strategies used for reading comprehension (such as the rules applicable to reading for the main idea and summarising, practice and repetition of these rules) and those for listening comprehension, namely note-taking, practice and repetition of rules. Fourthly, I shall depict the way in which the metacognitive intervention programme addresses the cognitive problems of L2 tertiary students (i.e. they appear to have inert, passive and impulsive learning styles) which pertain to reading and listening comprehension. Finally, I shall illustrate how the rules, principles and strategies learned in reading comprehension for studying (i.e. reading for the main idea) can be transferred to listening comprehension and note-taking.

4.1 FACTORS TAKEN INTO CONSIDERATION IN DESIGNING THIS INTERVENTION PROGRAMME

Various factors were taken into account in designing the metacognitive instruction

programme.

In general, L2 tertiary students who come from disadvantaged backgrounds and schools need to develop a whole range of specific academic and study skills over a fairly long-term period. As was pointed out in Chapter 1, L2 students generally require specialized training to enable them to study academic material. In the present study the L2 students needed instruction on how to master the academic material of the *Sociopedagogics* course. As this study is simply a pilot study, it only focuses on certain aspects of such an enrichment/development programme, namely, reading and listening comprehension (specifically reading for the main idea and summarising, and listening for the main, controlling and supporting ideas as well as note-taking).

An informal, subjective, method of data collection (described in greater detail in Chapter 5) was undertaken before the intervention programme in order to enable the researcher to identify specific problem areas which could then be addressed in the intervention programme. The data thus collected revealed that the L2 students appeared to have the following common problems in studying:

- they appeared to experience difficulty in learning for tests;
- they got bogged down in writing pages of notes in preparation for tests instead of summarising the notes in a few neatly set out pages where the main idea and supporting ideas appear in a logical and organized way. The reason for this was that they could not distinguish important information from non-important information;
- they found it difficult to take down lecture notes and to differentiate between important and unimportant information;
- they found it difficult to distinguish between the controlling, main and supporting ideas in lectures;
- they displayed inert, passive and dependent problem-solving learning styles;
- they tended to rely on rote learning and did not display reflective problem-solving behaviour;
- they found it difficult to apply knowledge to new situations;
- they often employed unplanned, unsystematic problem-solving strategies such as trial and error problem-solving strategies; and

- they did not concentrate whilst reading.

The researcher thus decided to focus on developing three specific academic/study skills. These were main idea identification, summarising and note-taking skills and strategies to enable the students to monitor their comprehension.

The researcher used a quasi-experimental design, and the students in the Sociopedagogics class were randomly assigned to an experimental and a control group (cf. § 5.1). The students' regular Sociopedagogics lecturer, who is also a qualified English and remedial teacher, was asked to teach the L2 experimental group of students a combination of metacognitive and cognitive strategies in one of their usual classrooms over a period of four weeks. The researcher assisted the Sociopedagogics lecturer during each lesson (e.g. to see whether the students were applying the rules and steps of the reading/summary plan and help check the students' answers) and both persons informally observed the students' behaviour.

Whilst the experimental group was busy with the intervention programme, the control group went to a classroom allocated to them for the purpose of studying for the Sociopedagogics examination. The control group was partially supervised that is, before attending to the experimental group, both the researcher and the lecturer made sure that the control group was studying for the forthcoming exam.

As one of the aims of this study was to teach the students in the experimental group metacognitive and cognitive strategies, it was felt that correcting spelling errors or punctuation would be counter-productive to mastering the skills of reading and listening for the main idea as well as summarising skills. The researcher takes a similar position to Hendrickson (1987:235) who says that although "teacher correction of learner errors is helpful to many students", it may not always be an "effective instructional strategy for every student or in all language classrooms" or situations. The researcher felt that as most students had passed English at matriculation level, it had to be assumed that they had attained a certain level of proficiency in reading, writing, listening, communicating, spelling and punctuation.

The programme needed to be cost effective and had to provide for individual as well as small

group needs. The duration of the programme had to be brief and intensive as students would only be able to attend a few lessons before their final examinations six weeks later. For this reason, the intervention programme was conducted three times a week over a period of four weeks (i.e. 13 units comprising 2 double and 9 single lessons). The lesson length varied from two to three hours. In order to combat fatigue, the students had a five minute break after every hour. Not only did the 13 units have to be fitted in before the exams, but they also needed to suit the students' different time-tables.

A shortcoming of the study as it stands, concerns the control group. Firstly, the researcher felt that because the experiment was conducted in a realistic setting (i.e. a L2 tertiary institution), the results of the students in the no-treatment control group might provide some insights into the actual daily problems that educators of L2 students are confronted with. For example, at present there is a lack of financial resources to provide extra teachers and tuition to the many L2 students requiring extra tuition and some South African tertiary departments are even sizing down or closing departments because of a lack of state subsidies. Ideally, the researcher would have preferred to use two control groups, one receiving another type of treatment and one receiving no treatment.

Secondly, due to the time factor i.e. the students had to write exams within a period of six weeks, the researcher had to fit the experiment into four weeks. It was impossible for the researcher and the lecturer to be with the control group and the experimental group at the same time. This was because there were no other time slots in which the researcher and the lecturer could have spent equal time and given their full attention to the control group. This was due to the fact that there were timetable overlaps and the students would not all have been available at other times. In addition, the students were concerned with the upcoming exams, viz: the Sociopedagogics exam was scheduled for the first day of the end of the year examination timetable. For this reason, the students in the control group seemed to want to use their 'free' time for studying for the exams. As a result of these 'real-world' constraints, the researcher and lecturer decided to firstly ensure that the control group was properly busy with their studies each time, before the researcher and the lecturer attended to the experimental group. Since a half a loaf is better than no bread, the researcher went ahead with the study even though the circumstances were not ideal.

Thirdly, both the experimental and control groups were 'at risk' or academically vulnerable students. This meant that they had inappropriate academic and study skills as well as ineffective learning strategies and they were 'at risk' of underachievement, failing academically and as a result would drop out of the tertiary institution (cf. 1.1.2.3). In order to address these problems, the researcher decided to teach the experimental group the skills of reading and listening for the main idea, summarising and note-taking. It was decided to use a control group which received no treatment but used the 'free' time for studying for the Sociopedagogics exam in a classroom provided for this purpose, since this approximates their real-life situation. The reason for this setup was to gauge whether students in the experimental group would benefit from learning new skills as opposed to students who have to cope as best as they can on their own. In 'real-world' education situations one has to decide whether to assist these 'at risk' students even though their improvement might not be great or to leave them without providing any assistance. For this reason, the results obtained by a no-treatment control group might reveal whether L2 students' can improve on their own without assistance. The problems arising from the experimental setup will be dealt with in greater detail later in this chapter (cf. § 4.10).

Fourthly, the researcher felt it would be viable to show that a low cost intervention programme could be provided for first year students receiving instruction in an L2 medium even if the results of the experiment group showed a slight improvement when their results were compared to a control group which received no intervention at all.

4.2 THE SUITABILITY OF THE SPECIFIC METACOGNITIVE INTERVENTION PROGRAMME

As stated in Chapter 3, metacognition is a fuzzy concept and inclusive definitions are nigh impossible. Despite this, there is "widespread enthusiasm for the emphasis on metacognition both in teachers' instruction and in students' independent learning" (Paris & Winograd 1990:20). The present metacognitive intervention programme will limit the construct *metacognition* to the following:

- it refers to knowledge/awareness about the L2 learners' cognitive states and abilities that can be shared among people;

- it refers to L2 learners' knowledge about variables relating to themselves as learners (i.e. judgements about their personal cognitive abilities);
- it refers to knowledge about task factors that influence cognitive difficulty;
- it refers to knowledge of metacognitive strategies such as regulating/monitoring and revising ongoing performance;
- it refers to knowledge of cognitive strategies that may promote or impede academic performance;
- it includes declarative, procedural and conditional knowledge (i.e. by means of self-appraisal or personal reflections, the students answer questions about what they know, how they think, and when and why to apply knowledge or strategies); and
- it includes affective and motivational aspects of thinking.

As mentioned in Chapter 3 (cf. § 3.5), there are four instructional approaches which incorporate metacognition, namely direct explanation, scaffolded instruction, cognitive coaching and cooperative learning. After reviewing the suitability of each approach for teaching L2 students a combination of metacognitive and cognitive strategies applicable to comprehension, it was decided to employ certain aspects of these instructional approaches as they seemed particularly suited to addressing the academic/study problem areas of the L2 students in the present study.

Direct explanation is an important feature of cognitive and metacognitive instruction, especially with respect to reading comprehension skills and summarising (Brown *et al.* 1983; Brown & Day 1983; Baker & Brown 1984; Idol *et al.* 1991:72; Casazza 1993). More specifically, by means of direct explanation the lecturer can provide the students with detailed explanations about what they are learning. In addition, direct explanation is a technique by which L2 students can be assisted to develop metacognitive knowledge/awareness of the following:

- the existence of relevant strategies for reading and listening comprehension, *what* the strategies are, the impact of task characteristics, and knowledge about their own abilities (declarative knowledge);
- knowledge about the execution of various actions and *how* to monitor/evaluate and regulate comprehension (procedural knowledge); and

- *when* and *why* to apply various strategies and knowledge (conditional knowledge) (Paris & Winograd 1990; Idol *et al.* 1991).

Direct explanation also emphasizes the importance of self-evaluation and promotes students' understanding of reading strategies. By means of guided practice, independent practice, social exchange of shared knowledge between teachers and students, lecturer and student feedback as well as revision, the responsibility of learning is gradually transferred to the students. According to Paris & Winograd (1990), direct instruction is an economical and effective manner of teaching, as large groups or whole classes can be taught in this way.

Some strategies of scaffolded instruction were included, such as lecturer and student modelling, and students thinking aloud about the strategy or skill and its application. Strategies of cognitive coaching which also emphasize direct explanation, modelling, motivational encouragement and taking responsibility for self-regulated learning, were also included in the instruction programme. The reason for this decision was that these strategies appear to be successful in teaching reading, writing and problem-solving (Collins *et al.* in press in Idol *et al.* 1991). Finally, it was felt that these aspects of the instructional approaches would enhance effective teaching and self-regulated learning, and suit the types of *Sociopedagogics* tasks and texts and "mixed status" of the L2 students (cf. Chapter 5).

To conclude, the present metacognitive intervention programme is an approach that first informs students about the criterion behaviour, then models the criterion behaviour and eventually leads students to independent performance of this behaviour. This creates a sequence of telling/informing, modelling, and providing practice opportunity with guidance and feedback.

4.3 THE AIMS OF THE INTERVENTION PROGRAMME

The main aim was to address the metacognitive problems pertaining to comprehension for studying, especially reading and listening (cf. Chapter 3), by means of developing three metacognitive strategies, namely, metacognitive awareness, metacognitive self-regulation or monitoring, and metacognitive compensatory strategies. It was hoped that by teaching L2 students metacognitive strategies they would gain knowledge and control over their thinking

and learning activities, specifically comprehension for studying.

4.3.1 Training in metacognitive awareness

The aim of metacognitive awareness training was to guide students to become aware of their own learning styles, and the need for organizing, reflecting on and planning their learning activities. The objective of metacognitive awareness training was that after the intervention programme the students would attain self-knowledge with respect to the following aspects:

- they would gain insight into the way they learn and realize that they often approach the learning task in an unplanned, disorganized and hasty manner instead of a reflective manner. They would be made aware of the fact that jumping to conclusions without considering alternative responses (i.e. impulsive behaviour or an impulsive cognitive problem-solving style) negatively affects their performance (Baker & Brown 1984; Silberstein 1987);
- they would realize the importance of paying attention to the task at hand;
- they would become aware that there are specific rules applicable to reading in order to learn and summarise accurately and consequently be encouraged to apply and transfer their skills to other situations;
- they would become actively involved in their reading and listening comprehension tasks instead of being passive learners;
- they would become motivated to be positive about their learning and consequently to make positive judgements and choices in academic learning situations (Paris & Winograd 1990); and
- they would become aware that they needed regular practise of these strategies.

Self-awareness is a necessary condition for self-regulation. Students needed to be made aware of their own activities whilst reading or summarising in order to enable them to regulate what they were doing (Baker & Brown 1984; McLain 1991). Short adapted texts which were relevant to their learning situation were taken from the L2 students' Sociopedagogics textbooks and were used during self-awareness training.

In this study, reading for the main idea was bridged to listening comprehension where

students had to take notes by means of dictation whilst simultaneously identifying the main and supporting ideas. It was hoped that they would become aware that the rules and strategies learned in the reading situation could be applied in other situations, such as listening.

4.3.2 Training in metacognitive self-regulation

The aim of metacognitive self-regulation or monitoring training was to enable students to manage their own learning. Self-regulation training was applied to reading and listening to help L2 students to gain insight about themselves as learners and the task at hand. The objectives of self-regulation training were to assist students to:

- organize their learning (i.e. students need to focus attention);
- plan their learning (i.e. they need to define the problem and clarify the purpose of reading or listening);
- evaluate and monitor their reading progress and errors;
- reflect whilst reading and listening, as hasty decisions and impulsivity generate incorrect information;
- gain insight into the fact that their reading and listening comprehension ability was inadequate because they could not comprehend the meaning of a text correctly; and
- realize that a reading and summarising plan can assist them to regulate and improve their concentration and reading (Kaplan 1990) as well as summarising skills.

4.3.3 Training in metacognitive compensatory strategies

Pearson & Fielding (1991:8156) stress the importance of comprehension strategy instruction. The aim of training L2 students in the use of metacognitive compensatory strategies for comprehension was three-fold:

- to assist the students to become aware that metacognitive strategies could be consciously invoked by themselves as readers or listeners in order to enhance comprehension. These strategies entailed:

- * establishing the goal of the reading or listening act (e.g. to read or listen for the main idea);
 - * focusing on metacognitive knowledge about themselves, the text and the task;
 - * planning the regulation/monitoring of the reading or listening act (e.g. asking themselves questions and detecting discrepancies between what they knew and did not know).
-
- to raise the students' awareness of the importance of monitoring or keeping track of the success or failure with which their reading or listening comprehension is proceeding; and
 - to try and increase the students' awareness of what fix-up or compensatory strategies they could employ when comprehension fails. The objective was to teach students compensatory or fix-up strategies, that is, how to take measures to deal with comprehension problems which may arise during reading or listening comprehension. For example, when comprehension fails and the text does not make sense, students can summarise the main content, formulate questions about the content, monitor their comprehension by means of self-instruction training, and check whether their comprehension was successful by evaluating the correctness of their answers by means of a model answer provided by the lecturer (Baker & Brown 1984; Weinstein & Underwood 1985; Kaplan 1990; McLain 1991; Pearson & Fielding 1991).

4.4 MATERIALS EMPLOYED IN THE INTERVENTION PROGRAMME

Idol *et al.* (1991:76) state that cognitive instruction should preferably be "conducted within subject matter areas and within the context of tasks that have meaning for the students". For this reason, passages from the students' prescribed Sociopedagogics textbooks and three passages from class application exercises were used. The instructional materials from the text books were culturally relevant and dealt with themes which are applicable to many black children in South Africa (Le Roux 1992; 1993; 1994), for example, child abuse, juvenile delinquency and street children. Another reason why passages from the textbooks were chosen was because their content is aimed at students who are in their first year of tertiary education. The learning material was thus linked to the students' prior and existing

knowledge and enabled them to benefit from working with passages that were academically relevant to them. In addition, passages were selected from McWhorter's (1995:121-123) *College Reading and Study Skills*. Four similar paragraphs from this book were used to demonstrate that the topic sentence is not always found in the first sentence but can be located elsewhere. A more detailed description of the pre- and post test materials will be given in Chapter 5.

4.5 THE FORMAT OF LESSONS DURING THE INSTRUCTION PHASE

The format of the reading plan is similar to that used in the study undertaken by Kaplan (1990) on inattentive children, except that in the present study, the L2 tertiary students were explicitly taught where to locate the topic sentence or main idea in a paragraph, instead of having to use multiple choice questions and answers to find the main idea. Because some black L2 tertiary students seem to have a strong reliance on rote learning, the researcher asked the lecturer to initially spend some time discussing the impact of task characteristics on studying (cf. § 4.6.1.2) and the way in which study strategies influence academic performance (cf. § 4.6.1.3) with the experimental group. Thereafter the lecturer focused on main idea and summary instruction. By means of explicit instruction the lecturer hoped to stimulate the students' thinking by exposing them to learning rules and strategies as a group, facilitating the sharing of common problems and encouraging and motivating students to join in and suggest possible solutions or alternative answers. In addition, the lecturer hoped to promote student-teacher dialogues.

The intervention programme was structured in four interlinked phases, viz:

- Phase One: a *Reading for the Main Idea Plan* (Lessons one to four);
- Phase Two: transferring the knowledge acquired in Phase One, namely, reading for the main idea to listening comprehension and note-taking (Lesson five);
- Phase Three: incorporating the steps of the *Reading for the Main Idea Plan* into the steps of summarisation (Lesson six). (cf. Tables 4.1, 4.2 and 4.3); and
- Phase Four: five revision lessons.

With regard to reading for the main idea and summarising, the following metacognitive strategies, as identified by Oxford (1990:136), were employed by the L2 experimental group:

- the students had to centre their learning, i.e. focus attention (cf. Tables 4.1 and 4.3, columns one, two and three);
- the students had to arrange and plan their learning, i.e. identify the purpose of the reading task (which is to identify the main idea in a passage and/or summarise a passage), plan and self-regulate their learning by using the "Let me think .." technique, practise finding the main idea and compile a summary by means of the rules or steps (cf. Tables 4.1 and 4.3 columns one, two and three); and
- the students had to evaluate their learning by means of self-testing/evaluation, self-correction, self-monitoring and checking their success (cf. Tables 4.1 and 4.3 columns one and two).

With respect to listening comprehension for note-taking, a combination of metacognitive and cognitive strategies were employed. The students used the cognitive strategies of note-taking and verbal repetition of instructions. The metacognitive strategies demonstrated in Table 4.2 included:

- centring their learning (paying attention);
- arranging and planning their learning (students identify or become aware of the purpose of the listening task, namely to identify the main, controlling and supporting ideas), and plan for the listening and note-taking task (write down a dictated passage, listen for the main and supporting ideas and find a title); and
- evaluating their learning (self-monitoring and self-evaluating).

4.6 PHASE ONE

Phase One emphasized reading for the main idea and comprised two double and two single lessons.

4.6.1 The introductory lesson

One of the aims of Phase One, and of the introductory lesson specifically, was to explain to the students what a learning strategy is, why it should be learned, when and where it should be used, and how it could be used. Another aim was to show the students that task characteristics (e.g. reading for pleasure or studying), study strategies and students' own abilities (e.g. metacognitive declarative or conditional knowledge) influence the way in which they read or study. The object of this lesson was to mediate declarative, procedural and conditional knowledge. The lecturer tried to raise the students' level of awareness with respect to what a cognitive strategy was, its usefulness and the conditions or appropriate circumstances under which a strategy could be used. Furthermore, the lecturer guided the students to appraise themselves and make judgements about their reading by means of discussion about which cognitive strategies they use in reading different texts and which task factors influence cognitive difficulty, as suggested by Paris & Winograd (1990).

4.6.1.1 Direct explanation of the concept *learning strategy*

The lecturer explained to the students that learners employ certain behaviours or strategies whilst learning, in order to assist them improve their ability to learn or remember something. For instance, learners might repeat key words or phrases silently or aloud to assist them in reading or listening comprehension activities. The lecturer then asked the students to give examples of other learning strategies. Answers included summarising a passage or taking down notes during lectures. The lecturer mentioned in passing that the strategies used for summarisation and note-taking were also known as cognitive strategies but that the students could just refer to them as strategies.

The lecturer then asked the students *why* (conditional knowledge) they used these strategies. In other words, what were the purpose and the benefits of employing strategies such as summarisation and note-taking. Several students replied that they enabled learners to remember important information.

The lecturer asked the students *when* and *where* (also conditional knowledge) they would

employ summarisation and note-taking strategies. Some students replied that there is a need to summarise at tertiary level in order to study for a test or examinations. The lecturer then asked them to give examples of types of summarisation. The students replied that summarisation could take the form of taking notes from textbooks or lecture notes. In addition, it was also necessary to summarise information in order to do university projects.

The lecturer then told the students that learners sometimes did not know how to do something. They would then need to find out *how* (procedural knowledge) to do something i.e. acquire the strategies required for a task. In such a case, knowledge of the rules or procedures of how to do something was important. For instance, when learning to use a typewriter it is important to know where to place one's fingers on a typing keyboard in order to type effectively. The lecturer then asked the students if they could think of another example. One student replied that whilst baking it was necessary to follow the steps or instructions of a cake recipe in order to bake a tasty cake. The lecturer then stated that there were steps or rules applicable to reading comprehension but that they would discuss them during the next lesson (cf. § 4.6.2).

4.6.1.2 The impact of task characteristics on learning

The lecturer hoped to elicit conditional knowledge from the students. More specifically, she hoped to help them to become aware of when and why they apply various strategies and knowledge. The lecturer hoped that this lesson would assist students to gain insight into or metacognitive knowledge of the fact that task requirements (e.g. reading for pleasure as opposed to study purposes) influence cognitive difficulty and the strategy they used to extract meaning. In order to get the students actively involved, the lecturer asked students to think about why they read. Answers varied from reading for enjoyment to reading an academic text. They stated that when they read for enjoyment they read for entertainment or pleasure and that they only needed a moderate comprehension of main ideas. They also pointed out that they read newspapers more quickly than textbooks. However, when they read an academic text the purpose was to learn for a test or exam or to gain knowledge of the subject. This meant that they had to find the main idea as well as the supporting ideas and they had to be able to summarise the text. The lecturer then elicited the response from the

students that both types of reading texts had an aspect in common, namely reading for the main idea. On further probing, students stressed that in contrast to reading for pleasure, the aim in reading an academic text or study task was to achieve a high level of comprehension and recall. Conditional knowledge was thus elicited from the students.

4.6.1.3 Study strategies which affect performance

The lecturer and students then discussed the fact that people study in different ways in order to achieve the same goal. For example, whereas some students said they underlined words, others read the text over and over. Some looked for key words whilst others made summaries of the work to be learnt. The lecturer then asked the students to make cognitive judgements about the success or failure of their specific study method. Students became aware of the fact that although each person uses his/her own method or strategy, not all students are equally successful. The lecturer tried to raise their level of awareness about the influence of task factors on strategy use. More specifically, the lecturer explained that their reading performance might be influenced by impulsive or reflective problem-solving styles or a lack of a plan for studying, for instance, when reading, summarising or performing listening comprehension.

4.6.2 Phase One: The second lesson

The aim of this lesson, which was a double lesson, was to make students more adept at using reading comprehension strategies. For this purpose, students needed to know about the existence of strategies for reading for the main idea (declarative knowledge), how to monitor and regulate reading comprehension (procedural knowledge) and when to apply these strategies (conditional knowledge). The objectives of this lesson were as follows:

- to discuss the differences between a controlling, main and a supporting idea;
- to find out whether the students understood what a main idea or topic sentence was;
- to discuss where the main idea could be found; and
- to guide students to use a reflective problem-solving style whilst reading.

The lecturer told the students that both reading and listening comprehension require thinking about the controlling idea, i.e. the broad general idea or topic of the lecture. To avoid confusing the students, the lecturer said that the controlling idea is similar to the main idea but more comprehensive. It is slightly easier to find the controlling idea in a textbook than in other texts due to typographic conventions. The lecturer referred the students to their textbooks (Le Roux & Smit 1992:84-5) to demonstrate the difference between controlling, main and supporting ideas as follows: The *controlling idea* in a textbook is often the main heading, e.g. "Causes for the development of an anti-child culture". The sub-heading would contain the *main* and *supporting ideas*, e.g. "contemporary society" (main idea) and "parents' obsession with materialism and money" or "decreased opportunities for intimate discussions between parents and the teenager" (supporting ideas).

The lecturer stressed that a paragraph is a group of related sentences about a single topic. A well-written paragraph generally has three main elements, the topic, the main idea and detail. The topic enables the reader to find out what the entire paragraph is about (i.e. the controlling idea). The most central topic idea in the paragraph is the main idea and is found in the topic sentence. The details or supporting ideas in the paragraph explain, support, prove or give reasons which explain the main idea in the paragraph (McWhorter 1995).

4.6.2.1 Explanation: The cognitive strategy for identifying the main idea in a paragraph

The lecturer asked the students what a main idea was. The students replied that the main idea tells the reader about the topic. The lecturer then asked the students where the main idea in a paragraph could be found. Several students stated that it could be found in the first sentence. Most of the students were unaware that the main idea could be found elsewhere in a paragraph and not necessarily in the first sentence. The lecturer then explained that although the main idea is sometimes stated in one sentence, it is not always limited to a single sentence. She also stated that one way of checking whether the main idea is stated in a specific sentence would be to change the sentence into a question. If the paragraph answered the question formed from the sentence, it was a main idea. Another way to locate the main idea is to distinguish between general and supporting ideas. The main idea is usually stated in the topic sentence and excludes examples.

The lecturer explained what the strategy for identifying the main idea or topic sentence was by describing the critical features of the strategy:

- *First sentence.* The most common placement of the topic sentence is in this position of the paragraph. In this kind of paragraph, the author states the main idea at the beginning of the paragraph and then elaborates on it;
- *Last sentence.* This is the second most common position of the topic sentence. In this kind of paragraph, the author leads up to the main idea and then states it in a sentence at the very end;
- *Middle of the paragraph.* This is another common placement of the topic sentence. In this instance, the author builds up to the main idea, states it in the middle of the paragraph, and then elaborates on it; and
- *First and last sentences.* The author sometimes uses two sentences to state the main idea. In other words, the main idea is mentioned twice in one paragraph. In this kind of paragraph, the writer often states the main idea at the beginning of the paragraph, explains or supports the idea, and then reaffirms the main idea at the end (McWhorter 1995:121-123).

4.6.2.2 Modelling: The cognitive strategy for reading for the main idea

The lecturer had previously written the steps of the *Reading for the Main Idea Plan* on an overhead transparency (cf. Table 4.1, column 1). These steps were modelled by the lecturer and the students as a group were asked to respond by repeating them chorally. As students became motivated, they were encouraged to take turns modelling the plan individually. It was hoped that the students would gradually gain confidence and eventually be able to work independently.

4.6.2.3 Application: The cognitive strategy for reading for the main idea

Students were given a *Reading for the Main Idea* passage on which to execute and practise the various actions of monitoring and regulating their comprehension (cf. Paragraph No. 1). In order to make the individual steps of the reading plan easier, students had to think aloud to themselves, repeat the steps of the plan verbally as a group, and then apply the plan to the

passage below.

READING FOR THE MAIN IDEA PARAGRAPH NO. 1

The South African Trade Commission has become increasingly interested in false and misleading packaging. Complaints have been filed against many food packagers because they make boxes unnecessary large to give a false impression of quantity. Cosmetics manufacturers have been accused of using false bottoms in packaging to make a small amount of their product appear to be much more. (Adapted from McWhorter 1995:121.)

A discussion followed as to why the main idea was in the first sentence and not elsewhere in the paragraph. The students asserted that the main idea or topic was *false and misleading packaging* which is mentioned in sentence one (cf. Paragraph 1 above). In the rest of the paragraph the author expands on this idea or topic.

4.6.3 Phase One: Lesson 3

The aims of this lesson, which was also a double lesson, were as follows:

- to give students the opportunity to practise and apply the relevant cognitive strategy (i.e. the rule for the main idea was applied to different paragraphs);
- to practise using the metacognitive strategy applicable to *Reading for the Main Idea Plan* in a group and by themselves; and
- to encourage students to employ a reflective problem-solving method when reading.

The objectives for this lesson were for students to use the steps of the *Reading for the Main Idea Plan* and apply them to reading for the main idea (cf. Paragraphs No.s 2, 3, 4 and 5).

The lecturer once again modelled the steps of the *Reading for the Main Idea Plan* aloud. Students then worked through the steps of the plan as a group by reading the steps (cf. Table 4.1, column 1). They then applied this knowledge to Paragraph No. 2 below whilst whispering to themselves. They also applied the plan to three different paragraphs where the main idea was placed in different places (cf. Paragraphs No.s 3 to 5).

READING FOR THE MAIN IDEA PARAGRAPH NO. 2

The good listener, in order to achieve the purpose of acquiring information, is careful to follow specific steps to achieve accurate understanding. First, whenever possible the good listener prepares in advance for the speech or lecture he or she is going to attend. He or she studies the topic to be discussed and finds out about the speaker and his or her beliefs. Second, on arriving at the place where the speech is to be given, he or she chooses a seat where seeing, hearing, and remaining alert are easy. Finally, when the speech is over, an effective listener reviews what was said and reacts to and evaluates the ideas expressed (McWhorter 1995:121).

The researcher observed the students' behaviour and found that they were cooperative and willing to participate actively. Both the researcher and lecturer walked amongst the students, guided them, corrected answers and provided feedback to the group as a whole. Interestingly, 70% of the students correctly identified the main idea in the first sentence.

READING FOR THE MAIN IDEA PARAGRAPH NO. 3

Whenever possible, the good listener prepares in advance for the speech or lecture he or she plans to attend. He or she studies the topic to be discussed and finds out about the speaker and his or her beliefs. On arriving at the place where the speech is to be given, he or she chooses a seat where seeing, hearing, and remaining alert are easy. And, when the speech is over, he or she reviews what was said and reacts to and evaluates the ideas expressed. Thus, an effective listener, in order to achieve the purpose of acquiring information, takes specific steps to achieve accurate understanding (McWhorter 1995:122).

After the students had worked through paragraph 3, the lecturer handed each of them a typed page of the reading plan (cf. Table 4.1, column one). The students worked through the steps on their own. They applied the procedural knowledge whilst thinking aloud by means of whispering (e.g. What do I have to do?). Only 30% of the students realized that the last sentence contained the main idea (cf. Paragraph No. 3). In the ensuing discussion some students pointed out that the last sentence also sums up the passage. The students then worked through two more paragraphs where the main idea or topic sentence was placed in the middle sentence, and the first and last sentence respectively (cf. *Reading for the Main Idea* Paragraphs No.s 4 and 5). The lecturer and the researcher circulated amongst the students to ensure that all the students were actively participating and correctly applying the reading plan.

READING FOR THE MAIN IDEA PARAGRAPH NO. 4

Whenever possible, the good listener prepares in advance for the speech or lecture he or she plans to attend. He or she studies the topic to be discussed and finds out about the speaker and his or her beliefs. An effective listener, as you are beginning to see, takes specific steps to achieve accurate understanding of the lecture. Furthermore, on arriving at the place where the speech is to be given, he or she chooses a seat where seeing, hearing, and remaining alert are easy. And, when the speech is over, the listener reviews what was said and reacts to and evaluates the ideas expressed (McWhorter 1995:122).

After the students had worked through the *Reading for the Main idea Plan*, 60% of them thought that the first sentence contained the main idea, while the rest of the class thought that the main idea appeared elsewhere in the paragraph, although they were unsure where the topic sentence was located. The lecturer then told the students to work through the self-instruction steps again and to apply them to the same paragraph. After the students had monitored their errors, they were given a second chance to identify the main idea. The lecturer then provided the correct answer. The students' answers improved considerably after this practice opportunity.

READING FOR THE MAIN IDEA PARAGRAPH NO. 5

The good listener, in order to achieve the purpose of acquiring information, is careful to follow specific steps to achieve accurate understanding. First, whenever possible the good listener prepares in advance for the speech or lecture he or she is going to attend. He or she studies the topic to be discussed and finds out about the speaker and his or her beliefs. Second, on arriving at the place where the speech is to be given, he or she chooses a seat where seeing, hearing, and remaining alert are easy. Finally, when the speech is over, an effective listener reviews what was said and reacts to and evaluates the ideas expressed. Effective listening is an active process in which a listener deliberately takes certain actions to ensure that accurate communication has occurred (McWhorter 1995:122).

In Paragraph No. 5, 20% of the students noticed that there were two topic sentences in the text, namely, the first and last sentences. 70% of the students thought that the first sentence was the topic sentence. After the students had had a second opportunity to practice and revise the self-instruction steps and apply the cognitive strategy applicable to locating the main idea or topic sentence, their responses improved and they appeared to understand that the author had stated the main idea in the first sentence, elaborated on the idea and then reaffirmed the main idea in the last sentence.

4.6.4 Phase One: Lesson 4: Revision

The aim of this lesson was to reinforce the skills acquired in lesson 3 (cf. § 4.6.3). The objectives of this lesson were to give students a chance to:

- practise and revise the steps for self-instructional training for reading for the main idea;
- apply metacognitive reading skills which entail regulating and monitoring the reading process; and
- be provided with feedback (cf. Table 4.1).

Students were given the same passage (cf. Paragraph No. 6 below) that they and the control group had been given in the pre-test. One reason for using the test again was to familiarize students with the text in order to facilitate successful processing of the text and full comprehension. Another reason was that students experience a feeling of linguistic progress with texts they are familiar with and which they do not perceive as too difficult (Lund 1990:106; 113). The lecturer asked a student to model the steps of the *Reading for the Main Idea Plan* to the rest of the students. The students had to work through all the steps aloud as a group; go through all the steps individually and select the main idea by underlining it; evaluate the correctness of their answer and substantiate their answers; and finally, apply the technique to another passage (cf. Paragraph No. 7) independently whilst whispering the rules and principles to themselves.

READING FOR THE MAIN IDEA PARAGRAPH NO. 6

Education is embedded in and influenced by social factors in a social environment. Education cannot be isolated from societal influences. The upbringing of the child as it occurs in the contemporary family and school, is enacted against a social background. There is ongoing interaction between the educational environment and society. The child is educated for acceptance in society on the basis of the values, norms and skills that children acquire. Certain aspects of society could have a positive or negative influence on the African child's upbringing and development (Smit & Le Roux 1993:31).

READING FOR THE MAIN IDEA PARAGRAPH NO. 7

There are, in South African society, anti-child factors and sentiments that hinder the African child's development. These include disintegration of family life, overcrowding, undernourishment, political repression and political violence. These factors complicate the role of educators in contemporary society. At present educators, parents and the community are confronted with the task of educating African children in such a way that they will be able to realize a meaningful coexistence in a new South Africa (Smit & Le Roux 1993:32).

The students did not appear to experience serious problems with identifying the main idea when it was located in the first sentence. Although some of the students found it difficult to recognise the main idea when it was elsewhere in the paragraph, their answers improved considerably after they had been given more practice opportunities.

The researcher and the lecturer informally observed the students during the course of the four lessons to assess/monitor their understanding and application of the steps involved in identifying the main idea. By using the self questioning and thinking aloud technique "What do I have to do?" and replying to themselves, it appeared that the students were able to focus their attention, define the problem and identify the purpose of reading. This, in turn, fostered a reflective problem-solving style.

The students consciously regulated their reading and attention by asking the following: "Let me think - where is the main idea found?" After the students had chosen the main idea in the topic sentence and underlined it, the lecturer asked each student what his or her answer was. Students were required to substantiate their answers by stating the rules and principles applicable to where the main idea or topic sentence is generally found. The lecturer then gave them an opportunity to monitor by changing or retaining their original answers (i.e. evaluating the correctness of their answers). Initially the lecturer and the researcher marked the students' answers but at a later stage they allowed the students to mark their own work and gave them the correct answers. Individuals in the group once again had to give a reason why the answer was correct or to debate the issue if they were still undecided. In this way, self-correction and checking for success took place. In the process, the students gained confidence and felt motivated when their answers were successful. On the other hand, the fact that the students gained knowledge of strategies and applied them via the reading plan, heightened their self-awareness. The students realized that by employing a reading plan with

strategies and rules they were able to slow down their reading pace, concentrate, and reflect on the task at hand instead of working in a hurried, impulsive and unplanned manner. Students were also encouraged to ask questions about aspects of the *Reading for the Main Idea Plan* or rules or principles they were uncertain of or wished to have repeated or explained. After discussion, it seemed that the students understood that in order to read strategically they had to know the strategy, why it should be learned, how to employ it, when and where to apply it and how to evaluate the strategy (Paris & Winograd 1990:32-33). Table 4.1 serves as a summary of what has previously been discussed.

TABLE 4.1
PHASE ONE: THE READING FOR THE MAIN IDEA PLAN

The steps for self-instructional training in reading	Self-regulated learning	Metacognitive reading strategies
1. What do I have to do?	1. Self-awareness	1. Focusing attention
2. I have to read this passage and find the main idea of topic sentence.	2. Knowledge and application of strategies	2. Identifying the purpose of reading
3. Read the passage.	3. Knowledge and application of strategies	3. Purposeful reading and self-monitoring
4. Let me think - where is the main idea found? - First sentence - Last sentence - Middle sentence - First and last sentence - Invent own main idea	4. Procedural knowledge and application of strategies	4. Self-questioning, self-regulation and prediction
5. Read the passage again to decide where the main idea is.	5. Knowledge and application of strategies	5. Monitoring and reality testing
6. Choose main idea and underline.	6. Self-evaluation/review	6. Self-testing
7. Evaluate the correctness of my answer against the correct answer provided by the lecturer.	7. Self-correction	7. Monitoring errors/checking success

(Brown 1980; Baker & Brown 1984; Kaplan 1990; Oxford 1990; Paris & Winograd 1990).

4.7 PHASE TWO

This phase comprised of transferring the reading comprehension skills learnt in Phase One to listening comprehension.

4.7.1 Lesson 5: Transferring skills

The aim of this lesson was to demonstrate to students that listening is a process that is similar to reading. This is because comprehension for both reading and listening require the ability to identify the main idea and supporting ideas.

The objectives of this lesson were:

- to show L2 students that comprehension of lectures is important to academic success;
- to assist students to reflect on the reasons why listening comprehension is important;
- to demonstrate to the students that the same principles (i.e. focusing on the main idea or topic sentence) could be applied in similar situations (i.e. listening comprehension and note-taking); and
- to revise how to identify the controlling, main and supporting ideas (cf. § 4.6.2, Lesson 2).

The lecturer asked the students to comment on the following statement and to substantiate their answers: "Just as reading comprehension is important in studying to obtain the main idea, summarising and learning for a test or exam, so is listening comprehension and taking notes in a lecture". The students agreed with this statement and provided comments, such as "Listening comprehension and note-taking are important activities in order for students to have an idea what the lecture is about, to understand the lecture, to listen for the main and supporting ideas, to be able to recall the content later on to enable one to learn or make a summary of the content." In other words, the students seemed to realize that accurate lecture notes enable them to acquire information which they can use for study purposes at a later stage.

The lecturer then engaged the students in a discussion as to whether they always understood and followed the main points or arguments of a lecture. The students replied that they did not. They stated that the following factors influenced their listening and note-taking ability during a lecture: paying attention in a lecture, keeping up with the pace of the lecturer, and distinguishing between detail and the main idea.

The students also indicated that during note-taking they were unable to take down accurate and complete notes or record all the details or examples they required. The lecturer stressed that even good students only record just enough during the lecture to help them remember a main idea, detail or an example, as proposed by McWhorter (1992). In this way the lecturer tried to raise the students' level of awareness about the influence of task factors on strategy use, viz. that they should avoid thinking that they have to listen and write down every word in a lecture in order to take down notes successfully (Oxford 1993; McWhorter 1995).

The lecturer then pointed out that to overcome common listening and note-taking difficulties, students should listen in an intentional, purposeful, deliberate and organized way. In fact, the reading for the main idea skills they had developed would be useful for listening comprehension as well. The lecturer encouraged the students to draw parallels between listening comprehension and reading comprehension. Most of the students conceded that reading and listening comprehension require the ability to identify the main idea and supporting ideas.

Furthermore, both types of comprehension require thinking about the controlling idea, that is, the broad general idea or topic of the lecture. The lecturer told the students to form pairs to discuss the differences between the controlling, main and supporting ideas, after which one person in each of the five groups reported back to the lecturer and class. Most of the students who reported back stated that the controlling idea in a textbook is often the main heading. The main and supporting ideas would be found in a paragraph or sub-heading. The students pointed out that in practice it was not as easy to find a controlling idea in a listening comprehension passage as it was to find the controlling idea in a textbook. The lecturer told students that in a dictation passage the "title" of the topic is similar to the controlling idea.

To assist them to organise their notes and practise identifying the controlling idea, the lecturer suggested that the students should provide a title for their notes.

The lecturer explained that just as the students should have a reading plan, they should also have a listening plan. Students could improve their listening and understanding abilities in a real lecture situation in the following ways :

- focus attention;
- listen carefully to the lecturer's opening comments for cues such as whether the lecturer is linking the content of her lecture to the previous lecture (e.g. "In the last lecture we discussed anti-child factors in society, today we will continue with this topic but will discuss examples of various anti-child factors") or whether she is identifying the purpose of her present lecture (e.g. "Today we are to examine the different types of different types of child rearing");
- attempt to understand the lecturer's purpose (i.e. work out what the lecturer's purpose is if it is not explicitly stated);
- focus on content, not delivery, and focus on the main and supporting ideas (Williams 1984; Lund 1990; Oxford 1993; McWhorter 1995); and
- practise identifying the controlling idea by providing a title for the listening passage.

The lecturer then informed the students that she wanted them to practise and apply the strategy they had just discussed to a paragraph she was going to read to them after she had provided them with cues as to what to listen for (cf. Listening Passage No. 1). The lecturer told the students that the purpose of the dictation task was to give them a practise session in preparing for a real lecture situation, which is far longer and more open-ended.

The lecturer told the students that whilst writing down the dictation they might at times be unable to record every word. She suggested that they should leave gaps or spaces when they missed a word or phrase and rather concentrate on the gist of the passage whilst they were writing it down. She pointed out that good students also leave blank spaces and, if possible, fill in the missing information after the lecture or at home (McWhorter 1992). To reduce feelings of anxiety and failure because the students might perceive they could not cope with

the listening task, the lecturer read the first passage twice, once at a slower pace and then at a normal pace.

The lecturer requested the students to listen carefully and write down the passage. She pointed out that whilst they were writing the passage they had to pay attention to the following:

- listen for the main idea and one supporting idea whilst writing;
- apply the reading for the main idea strategy, viz. steps four to seven of the *Reading for the Main Idea Plan* once they had written down the passage; and
- find a suitable title for the dictation passage.

The lecturer then asked the students to verbally repeat the instructions as a group (cf. Table 4.2). Afterwards, the students listened to and wrote down Listening Passage No. 1.

LISTENING FOR THE MAIN AND SUPPORTING IDEAS PASSAGE NO. 1

Teenagers appear to be experiencing more problems in their lives as a result of inadequate parental support in the process of growing up. The teenager craves parental involvement. However, modern parents often appear to show insufficient interest and involvement in the upbringing of their children (Le Roux & Smit 1992:94).

Sixty percent of the students tried to write down every word of the dictation passage. The rest of the students allowed for gaps yet managed to get most of the passage in writing. The students correctly identified the main idea. Some responses for supporting ideas were: *Parental involvement* and *insufficient interest*. Titles included: *Problems teenagers experience* or *Parents give teenagers inadequate support*. These were considered to be adequate responses.

The lecturer made the students aware of the fact that although they had not written every word down, they were able to correctly identify the main idea and supply suitable controlling and supporting ideas. She then read the Listening Passage No. 2 to them at a normal speed.

LISTENING FOR THE MAIN AND SUPPORTING IDEAS PASSAGE NO. 2

Rebellion against parents and the community is one of the main reasons for the use and abuse of alcohol among teenagers. The teenager realizes that his behaviour will evoke indignation from his parents and the community. As a result he experiences a temporary feeling of independence and power (Le Roux & Smit 1992:94).

The students seemed to cope with the note-taking passage. They allowed for gaps and some of them managed to listen for and wrote down just the gist. Ninety percent of the students correctly identified the main idea. Examples of supporting ideas included: *Behaviour invoking indignation* or *Experiences a feeling of independence and power*. Titles included: *Rebellion*, *Alcoholic behaviour* and *Rebellion and alcohol abuse*. These were considered good answers.

At this stage only two paragraphs were used to practise listening for the main idea. During Phase Four (cf. § 4.9) the students were given other opportunities to practise listening for the main, controlling and supporting ideas as well as note-taking.

On the one hand, Oxford (1993:210) points out that an advantage of simplifying input such as slowing down speed, is that it gives the L2 student self-confidence in the classroom (cf. § 2.2.1.2). For this reason, the lecturer had slowed down her pace considerably when compared to a normal lecture situation whilst reading Passage No. 1 in order for the students to gain self-confidence and to reduce possible anxiety. On the other hand, Oxford (1993:210) maintains that L2 listening activities should not be simplified for greater ease of comprehension, as it is not always possible to do so in practical situations such as everyday communication situations. For this reason, Passage No. 2 was dictated at normal speed. As stated earlier in Chapter 2 (cf. § 2.2.1.3 and 2.2.1.8), students sometimes believe that they have to understand every word in a lecture and tend to stop listening if they hear an unknown word or phrase. Alternatively, they try to write down every word in a lecture. For this reason, the lecturer stressed that the students did not have to write down every word but could leave gaps and that the lecturer would reread both the passage at a normal pace so that the students could fill in gaps or missing words or phrases. Despite this reassurance, they still tried to write down every word during the first attempt. Consequently, the students stated that they found it difficult to keep up with the dictation pace of the lecturer. Because the students needed more guidance and practise in note-taking, additional practice

opportunities were thus provided in Phase Four. Table 4.2 provides a summary of what has been discussed during Phase Two.

TABLE 4.2
PHASE TWO: BRIDGING FROM READING TO LISTENING FOR THE
MAIN IDEA AND NOTE-TAKING

The steps for self-instructional training in listening comprehension and note-taking	Self-regulated learning	Metacognitive listening strategies
<p>Lecturer states verbally:</p> <p>I am now going to read a passage to you. Listen carefully to the passage whilst you write down the information. After you have written down the passage, I would like you to:</p> <ul style="list-style-type: none"> - underline the main idea or topic sentence; - find a supporting idea; and - find a suitable title or main heading of not more than five words for the passage. <p>What do you have to do?</p>	<p>1. Self-awareness</p> <p>2. Knowledge and application of strategies</p>	<p>1. Focusing attention</p> <p>2. Identifying the purpose of the listening task</p>
<p>Students as a group verbally:</p> <ul style="list-style-type: none"> - We have to pay attention. - We have to write down the passage; - listen for the main idea of topic sentence; and - find a supporting idea and a title. 	<p>3. Self-awareness</p>	<p>3. Selective attention</p>
<p>Lecturer states verbally:</p> <p>Fine. Pay attention as I am now going to start dictating the listening comprehension passage.</p>	<p>4. Self-awareness, knowledge and application of strategies</p>	<p>4. Focusing attention, self-monitoring</p>
<p>Students individually:</p> <p>After taking down the passage, each student applies steps 1 to 7 of the reading for the main idea plan to listening for the main idea.</p>	<p>5. Self-awareness, knowledge (i.e. procedural) and application of strategies. Self-evaluation/ review and self-correction (cf. Table 4.1, Column 2)</p>	<p>5. Focusing attention, identifying the purpose of listening, self-monitoring, self-questioning, self-regulation and prediction, reality testing, self-testing, monitoring errors/checking success (cf. Table 4.1, Column 3)</p>

4.8 PHASE THREE

During this phase emphasis was placed on summarisation.

4.8.1 Lesson 6: Summarisation

The lecturer's aims with respect to summarising were the following:

- to make students aware of what a summary was (declarative knowledge), of how they could use specific steps to create a summary (procedural knowledge) and why and when it is useful to compose a summary (conditional knowledge);
- to demonstrate the strategies for summarisation by means of a combined metacognitive and cognitive approach;
- to reveal the importance of self-regulation and monitoring of comprehension to students, especially with respect to their problem-solving styles. (It was hoped that this strategy would reduce trial-and-error behaviour and foster reflective thinking behaviour.)

The objectives of this lesson were:

- to assist the students to develop skills in summarising texts by getting them to focus their attention on the important elements of summarising;
- to give the students the opportunity to practise identifying the main idea and then to apply it to another situation, namely summarisation;
- to show the students that summarisation requires the use of reading skills and identification of the main idea, as well as condensation of texts whilst retaining the focus of the original text (Johns 1985);
- to describe the steps to develop self-instruction in summarising;
- to describe the metacognitive strategies taught to the students with respect to summarisation in order to promote self-regulated learning, self-monitoring and self-evaluation of errors and successes;

- to demonstrate to the students in a group context how to perform the summarising method; and
- to demonstrate to the students that by applying the rules of summarisation they could become more adept at studying for tests and exams.

The lecturer first asked students the meaning of the concept *summary*. The students replied that it meant rewriting the text in fewer words than the original text. One student remarked that a summary had to be written in full, connected sentences. The lecturer then asked the students why it was necessary to write a summary. Some students pointed out that it was useful and that it improves students' comprehension and recall of a text. The lecturer then requested the students to give examples of people who might find the art of summarisation useful in their daily work. Answers included: students, lawyers, journalists, secretaries and business managers.

The lecturer told the students that there were specific steps or rules that could assist them to create a good summary. She then explained the rules of summarising to the students as proposed by Brown & Day (1983:2), and wrote these rules on the board. The rules of summarising are:

- select a topic sentence or invent one;
- delete unnecessary material (i.e. material that is trivial and redundant);
- substitute a superordinate term or event or action for a list of items. For instance, the term *pets* can be a substitute for *cats*, *dogs* and *goldfish*, alternatively a superordinate action (*John went to London*) can substitute for a list of sub-components of an action such as *John left the house. John went to the train.* (Brown & Day 1983; Pearson & Fielding 1991:833).

The lecturer then explained that a summary involved planning and preparing for the task of summarisation. For instance, a student should identify the purpose of summarising, read the passage and pause to think about which steps to apply in order to summarise a passage. The lecturer then modelled the steps of the *Reading for the Main Idea Plan* incorporating the

steps of the Summary Plan, after which the students all chorally practised the steps involved in summarising (cf. Table 4.3, column 1).

The students then had to apply the rules of summarisation to Paragraph No. 6 (cf. § 4.6.4). The lecturer decided to employ the same passage used in lesson four, in which students had already identified the main idea and underlined the topic sentence (i.e. Phase One, Step 6). The reason was that identifying the main idea is one of the rules of summarising and the students were familiar with the specific text. The students were encouraged to use their pencils to delete words or ideas in the passage that had been repeated and therefore unnecessary, and to substitute one word instead of many (e.g. *milieus* for *family and schools*). They then had to write down their summary.

The students used the topic sentence as point of departure. After they had deleted unnecessary text (e.g. Sentence 2 in Paragraph No. 6) they deleted supporting ideas that linked to the main idea (e.g. *positive* or *negative* influence). The lecturer encouraged students to read their superordinate terms (e.g. *both milieus* instead of *family and school*) and then she let the class decide which words were most suitable. These words were written on the board.

Below is an example of the group's joint effort to summarise the above passage:

Education is embedded in and influenced by social factors in a social environment. The child is educated to acquire values, norms and skills by the family and school. Both milieus have an influence on the child's upbringing and development.

The researcher felt that although one practice run for summarisation was not sufficient, the students would be given a chance to practise and revise the summarisation rules and steps in subsequent lessons (cf. § 4.9.2). Table 4.3 provides a summary of Phase Three.

TABLE 4.3
PHASE THREE: THE SUMMARY PLAN INCORPORATING THE
STEPS OF THE READING FOR THE MAIN IDEA PLAN

The steps for self-instructional training in summarising	Self-regulated learning	Metacognitive strategies applicable to summarising
1. What do I have to do to write a summary?	1. Self-awareness	1. Focusing attention
2. I have to read the passage.	2. Knowledge and application of strategies	2. Identifying the purpose of summarising. Self-monitoring
3. Read the passage.	3. Knowledge and application of strategies	3. Purposeful reading and self-monitoring
4. What must I remember?	4. Procedural knowledge and application of strategies	4. Self-questioning and self-regulation
5. I must underline the main idea or topic sentence.	5. Knowledge and application of strategies	5. Self-regulation and prediction
6. Let me think - where is the main idea found?	6. Self-knowledge and awareness of procedure	6. Self-questioning and self-testing
7. I must repeat the rules for the main idea.	7. Application of rules and strategies	7. Monitoring and reality testing
8. Have I underlined the main idea?	8. Awareness of rules	8. Self-questioning and self-regulation
9. How do I shorten the passage?	9. Knowledge of rules and procedure	9. Self-questioning
10. I leave out unnecessary material, e.g. examples or descriptions and use one word instead of many.	10. Application of strategy	10. Monitoring and reality testing
11. I look at the passage again and delete unnecessary words.	11. Self-evaluation or review	11. Self-testing
12. I evaluate the correctness of my answer against the answer provided by the lecturer	12. Self-correction	12. Monitoring errors/checking success

(Brown 1980; Baker & Brown 1984; Kaplan 1990; Paris & Winograd 1990).

4.9 PHASE FOUR

Phase Four comprised the remaining revision lessons. The five lessons took the following format:

- Lesson 7: revising the Reading for the Main Idea Strategy and listening for the main, controlling and supporting ideas whilst taking down dictation.
- *Lessons 8 to 11* : revising both the summarisation strategy which incorporates the steps of the Reading for the Main Idea Plan and the listening strategy for the main, controlling and supporting ideas whilst taking down dictation (cf. Tables 4.1, 4.2 and 4.3, columns 1, 2 and 3).

4.9.1 Lesson 7: Revision of the reading and listening comprehension strategies

As stated previously (cf. 4.6.3), the aims of teaching both reading and listening for the main idea were to give L2 students the opportunity to become aware of the procedure for reading for the main idea, to practise the strategy of recognising the main idea and topic sentence, and to regulate and monitor their reading. Revision of the strategies was incorporated in the introduction of each lesson in order to reinforce previous learning and prepare students mentally for the subsequent exercises.

4.9.1.1 Revision of the reading for the main idea strategy

Paragraph No. 8 below was presented for the students to revise and apply the metacognitive and cognitive strategies applicable to Reading for the Main Idea.

READING FOR THE MAIN IDEA PARAGRAPH NO. 8

Beth did not get along very well with her parents and the family members fought a lot, lost their tempers and often criticized each other. Beth also said: "There are very few rules to follow in our family". She felt her parents did not support or control her adequately. It was important to Beth's parents that she achieved scholastically but this was less important to Beth.

The students worked through the paragraph and recognised that the main idea was placed in the first sentence. A class discussion followed as to an appropriate topic sentence. Students even volunteered supporting ideas.

Paragraph No. 9 was used to give students the opportunity to infer the main idea when it was

not explicitly stated in the text.

READING FOR THE MAIN IDEA PARAGRAPH NO. 9

A culture of poverty is not always equally 'visible' to everyone, since a community is generally organised in such a way that the middle and upper-class folk live, work, relax and attend school in surroundings where they hardly ever come into contact with the poor. This fact contributes to the continued existence of the culture of poverty. It has also generated considerable diversity of opinion on which categories of people are most affected by poverty (Le Roux & Gildenhuys 1994:29).

The students were reluctant to reveal what they thought was the main idea or topic sentence. They stated that they preferred to abide by the topic sentence rules they had been practising. This might be attributed to the fact that the students found it difficult to identify implicit main ideas or to apply the topic sentence invention rule (Brown & Day 1983; Hare & Borchardt 1984). This was also the first time they had actually applied this rule in practice.

The students were, however, encouraged to practise inventing their own main idea or topic sentence. Some students felt that the last sentence *Diversity of opinion on which categories of people are most affected by poverty* was the most likely topic sentence. Other students identified the main idea or topic sentence as *A culture of poverty is not always visible*. This led to a discussion of the suitability of the sentence as a main idea or topic sentence. Most students were of the opinion that the first sentence contained the main idea because it explained the way in which the "community is ... organised" and because of it "... they hardly come into contact with the poor" and it also substantiated the idea that "poverty" was not "visible".

In order to give students a chance to apply the specific main idea and topic sentence rules in a non-initial position, Paragraph No. 10 was used.

READING FOR THE MAIN IDEA PARAGRAPH NO. 10

Women's entry into the labour market has brought about many changes. The working mother increasingly fulfils a dual role. The care of the children of working mothers is frequently transferred to substitute care-givers. Such care centres are not always equipped with the necessary qualities and facilities to qualify as adequate substitute mother-care because the staff are often inefficient and unqualified (Le Roux & Smit 1992:108).

At least 90% of the students correctly identified the middle sentence as the main idea and topic sentence in this passage.

4.9.1.2 Transferring skills from reading to listening to the main idea

The aims of teaching listening comprehension and note-taking strategies were for students to become aware that the procedure for listening for the main idea is similar to that of reading for the main idea, to regulate their listening, and to apply the combined metacognitive and cognitive strategies applicable to reading for the main idea to listening for the main idea (cf. Table 4.2). In addition, students were given a chance to practise identifying controlling and supporting ideas.

Listening Passage No. 3 was used for the students to practise using an advance organiser (i.e. organising principles)¹ for listening comprehension.

The lecturer requested the students to listen carefully to the paragraph and write down the passage. She also reminded them of the organising principles:

- pay attention;
- listen for the main idea;
- find a supporting idea; and
- find a title for the passage.

LISTENING FOR THE MAIN AND SUPPORTING IDEAS PASSAGE NO. 3

The experience of child abuse totally prevents positive personality development. Early non-sexual and sexual abuse leads to personality disturbance such as weak ego strength during puberty, depression in adulthood, in suicide notions and attempts as well as in relationship disturbances. Thus child abuse has a major effect on personality development.
(Adapted from Meyer & Kotzé 1992:186.)

The students found this passage easier to take down than previous passages. Most of the

¹ O'Malley *et al.* (1985b in Brown 1994:116) uses the term *advance organizers* as follows: "Making a general but comprehensive preview of the organizing concept or principle in an anticipated learning activity".

students were able to identify the two topic sentences, namely, the first and last sentence. They supplied the following supporting ideas: *Early abuse leads to personality disturbance* or *Early ... abuse leads to personality disturbance ... as well as relationship disturbances*. The following two titles were chosen by the students: *Child abuse has a major effect on personality development* and *Child abuse affects personality development*.

4.9.2 Lesson 8: Revision of the reading for summarisation and listening for the main idea strategies

The aims of reading for summarisation were for the students to become aware of the procedure for summarisation, to regulate their reading, and to practise the combined metacognitive and cognitive strategies applicable to reading for the main idea and summarisation (cf. Table 4.3). The aim of listening for the main idea and note-taking was for students to become aware that the procedures for reading and listening for the main idea are similar. The purpose of the revision session was to consolidate these procedures and to see whether the students could apply the rules for both reading for the main idea and summarisation to a passage.

Paragraph No. 1 was employed so that the students could apply the rules for both reading for the main idea and summarisation to a passage. As the main idea or topic sentence in Paragraph No. 1 was placed in the middle position, the lecturer felt that the students would benefit if they did the summary in two main stages. First, one of the students was asked to model aloud the steps for reading for the main idea. The students were then requested to read Paragraph No. 1 to themselves whilst applying the steps in the *Reading for the Main Idea Plan*.

SUMMARISATION PARAGRAPH NO. 1

Abusers can be male or female; homosexual, heterosexual or bisexual; wealthy or poor; highly or poorly educated; family members or strangers. One cannot therefore identify would-be or future abusers. However, a profile gleaned from literature and statistics, together with other relevant information and data, should help determine when certain children might be at greater risk than others and when additional protection should be considered. (Adapted from Beckmann 1994:243.)

Below is a student's final summary which shows that the deletion rule had been mastered by the student.

Abusers can be anyone and they can't be identified. The profile gleaned from (reliable) sources should help determine when certain children might be at (greater) risk than others and when additional protection should be considered.

Summarisation Paragraph No. 1 presented a few problems, for example, some students thought that the main idea appeared in the first sentence. Three students recognised that the main idea appeared in the middle sentence. The lecturer and the researcher walked amongst the students and suggested that they should all repeat the steps of the *Reading for the Main Idea Plan*, reflect and then decide where the main idea was (i.e. review and self-correction). The students subsequently underlined the middle sentence as the main idea. The lecturer then told students to apply the *Summarising Plan*, which incorporates the steps of the reading for the main idea plan, individually to the passage (cf. Table 4.3).

In general, the students' summaries were appropriate. They were quite creative and substituted the list: *male or female; homosexual, heterosexual or bisexual; wealthy or poor; highly or poorly educated; family members or strangers* with the following superordinate terms: *Abusers can be anyone; unisex; male or female; different sexes; different types of people and human beings*. Each student was given an opportunity to read his or her summary aloud to the rest of the class. The students even volunteered to give supporting ideas. The students appeared to be motivated and at the end of the lesson some mentioned that they had really learnt something worthwhile during the past lessons.

4.9.2.1 The combined reading for the main idea and summarisation strategy

Paragraph No. 2 was used for students to practice the cognitive strategies applicable to summarisation which include reading for the main idea, deleting trivia and providing superordinate terms where applicable. The lecturer first modelled the steps of the *Reading for the Main Idea Plan*. Students then worked through the steps of the plan as a group and then applied this knowledge whilst whispering to themselves.

SUMMARISATION PARAGRAPH NO. 2

Beth Baker was a 15-year old child whose parents were in their late 40's. Beth's academic performance deteriorated and she dropped out of school. Mr Baker, Beth's father, had a managerial job. His wife, Mrs Baker, Beth's mother was a social worker in a large hospital setting. Beth's mother had put off having children because she enjoyed her work but realized she could not put off having children any longer because of her advancing age. Beth comes from a good socio-economic background.

The following example is representative of the format of most students' summaries.

Beth Baker was a 15-year old child whose parents were in their late 40's and came from a good socio-economic background. Her father had a managerial job and her mother was a social worker who put off having children because she enjoyed her work until she could not put it off any longer.

As can be seen, this summary reflects a sound application of the deletion and superordination rules.

The students were gaining confidence with regard to doing summaries and appeared to have a greater understanding of the method of summarising. They stated that *The Bakers* or *The parents* could be a superordinate term for *Beth's mother and father* or *Mr and Mrs Baker*. Some students added that 'Beth struggled at school'. Instead of the example above, namely "... mother ... who put off having children because she enjoyed her work", some students wrote "she could not put it off any longer". In addition, the students enjoyed discussing, sharing and exchanging ideas on the task at hand with the lecturer and fellow students.

4.9.2.2 Listening for the main, controlling and supporting ideas

Listening Passage No. 4 was used for students to listen for the topic sentence containing the main idea. In this instance, there are two topic sentences, viz. the initial and final sentence. In addition, they were given an opportunity to practise finding suitable controlling and supporting ideas.

LISTENING FOR THE MAIN AND SUPPORTING IDEAS PASSAGE NO. 4

Assuming that all children are at risk, it follows that it is not possible to predict which children will become actual victims of child abuse. There are three levels at which factors that are relevant to a description and understanding of the phenomenon of child abuse may be sought, namely, the micro level where there may be problems within the child himself or within his parents. The meso level refers to the type of services rendered by institutions. The macro level is where societal influence and change might play a negative role. From the above one can infer that it is difficult if not impossible to predict which children will be abused. (Adapted from Beckmann 1994:236.)

Although Listening Passage No. 4 was taken from the students' textbook and covered a theme they were studying at the time, they experienced difficulty taking down the dictation. Most students only identified the first sentence as the main idea. Three students identified the first and last sentences as the main idea. They pointed out that the last sentence often sums up or repeats what is stated in the first sentence. The students were feeling more at ease and suggested alternative answers. Supporting ideas varied and included *micro level*, *meso level*, *macro level* and *understanding the phenomenon of child abuse*. Most of the students chose the title *Child abuse*.

4.9.3 Lesson 9: Revision of summarisation strategy and revision of steps for listening for the main, controlling and supporting ideas

The aim of this lesson was for the students to practise and revise the combined metacognitive and cognitive strategies applicable to summarisation and listening for the main idea, and to regulate/monitor their reading and listening comprehension (cf. Tables 4.2 and 4.3).

Paragraph No. 3 afforded the students an opportunity to revise the cognitive strategies applicable to summarisation, namely reading for the main idea, deleting trivia and providing appropriate superordinate terms.

SUMMARISATION PARAGRAPH NO. 3

Beth spent a considerable amount of time alone. She ate dinner by herself because her parents both worked overtime regularly and came home late. Because her parents were physically and emotionally drained at the end of each day, they did not make time to understand or fulfil Beth's emotional needs adequately. She had no close friends and spent a considerable amount of time reading, taking photos and playing the piano. She did not engage in activities such as playing games, attending parties, going to plays or cinema, walking, hiking or bicycling.

An example of a student's answer after self-correction appears below:

Beth spent a considerable amount of time alone. She ate dinner alone because her parents worked overtime, came home late. They were physically and emotionally drained. They did not fulfil Beth's emotional needs. She spent time reading. She is an introverted person, she did not engage in social activities.

One of the students modelled the *Reading for the Main Idea and Summarising* strategy. In general, the students used and applied the deletion rule satisfactorily. Some used the superordinate term *introverted* for *she spent a considerable amount of time ... playing the piano. (A)ctivities such as playing games, attending parties, going to plays or cinema... was replaced with the superordinate term social activities.*

4.9.3.1 Addressing listening comprehension and note-taking problems

From the previous exercise (cf. § 4.9.2.2), it was clear to the lecturer and researcher that the students still had difficulty identifying main ideas while listening and taking notes. It was therefore decided to go over these steps again and present more practice opportunities. The lecturer wrote the word *pandemic* on the board and discussed its meaning with the students. The reason for writing the word was to serve as an advance organiser i.e. a means of activating a schema for an anticipated learning activity. She then asked the students to repeat the instructions and steps for listening for the main idea chorally. She reminded them to use the steps applicable to *Reading for the Main Idea Plan* once they had written down the passage and to concentrate on finding the main idea. They were also told to identify a supporting idea.

She then told the students that she was going to read a passage to them at a normal pace (cf. Listening Passage No. 5 below). They had to listen carefully and write it down. She first revised the steps of listening comprehension and note-taking, making students aware of the following strategies: pay attention, listen for the main idea, find a supporting idea, and decide on a title for the passage.

LISTENING FOR THE MAIN AND SUPPORTING IDEAS PASSAGE NO. 5

AIDS has become one of the most serious health threats and one of the most feared human diseases of the twentieth century. This fear is reflected in the common reference to AIDS as a world-wide 'pandemic'. Since there is no known cure for AIDS, forecasts of its consequences with regard to human suffering, population growth and monetary implications, have assumed immense importance (Swart-Kruger & Richter 1994:259).

The students managed to write down most of the paragraph and allowed for gaps. Most students were able to identify the main idea in the first sentence. They supplied the following supporting ideas: *fear; no known cure; worldwide pandemic; consequences with regard to human suffering*. Titles included: *AIDS, Implications of AIDS* or *AIDS as a worldwide pandemic*.

4.9.4 Lesson 10: Summarisation and listening comprehension

The aim of this lesson was once again to revise the rules of summarisation (i.e. the main idea or topic sentence, deletion rule, find a superordinate term and a controlling idea) and listening comprehension.

Paragraphs No.s 4 and 5 were used for revising the cognitive strategies applicable to the main idea (i.e. the rules applicable to locating the topic sentence in a paragraph) and the steps for self-instruction training. These two paragraphs were also used to encourage the students to apply the deletion rule applicable to summarisation and to find a controlling idea.

SUMMARISATION PARAGRAPH NO. 4

It has been proved that the fundamental pedagogic relationships of trust, authority and understanding which should exist between the adult as nurturer, and the child as a dependant, are violated by non-sexual and sexual abuse. The adult uses his position of authority and trust to satisfy his own needs, with complete disregard for the unique existence and development of the child in his totality: affective, cognitive, social, moral and physical. The child can and will therefore not become what he can and should become, and as an adult he bears the painful scars of the trauma of non-sexual or sexual abuse. (Adapted from Meyer & Kotzé 1992:187.)

Below is an example of a student's answer:

The fundamental pedagogic relationship (of trust, authority and understanding) which should exist between the child and the adult are violated by abuse. The adult uses his position to satisfy his own need, with disregard for the existence and development of the child in his totality. The child is potentially thwarted, and as adult he bears the scar of trauma and abuse.

In general, most students identified the correct main idea or topic sentence in Paragraph No. 4. They also volunteered supporting ideas and the title *Child Abuse*. In the above example, the student correctly identified the main idea in topic sentence one. He used the superordination and deletion rules correctly, for instance, *The fundamental pedagogic relationship* was used instead of *The fundamental understanding; totality* was substituted for *affective, cognitive, social, moral and physical*; and *abuse* for *non-sexual or sexual abuse*.

As the main idea or topic sentence in Paragraph No. 5 was placed in the initial and final position, the lecturer felt that the students would benefit if they practised doing a summary with a paragraph containing two topic sentences.

SUMMARISATION PARAGRAPH NO. 5

The child's positive self-image correlates with a personal, warm and involved style of family communication. Parental support and adequate interaction contribute to the child's social skills. The child consequently finds it easier to confidently establish warm personal relationships outside the family because it is something he knows and is skilled at. Furthermore, it can be stressed that personal, warm family communication can engender a good-natured predisposition in the child which contributes to a positive self-image (Le Roux & Smit 1992:112).

All the students realized that the main idea was placed in the first and last sentence. They pointed out that often the final sentence sums up the main idea in the first sentence and the last sentence often contains words such as "thus" or "furthermore". After evaluating their answers, the students discussed their reasons for giving this answer, namely, the same idea is repeated in both sentences. This response was supported by the following phrases: *family communication which is personal, and warm leads to a positive self-image*. The students also volunteered titles: *The importance of warm parenting*; *The child's self-image and communication (2x)*; *Parental support builds child's social skills*; *Good family communication*

and *Warm relationships*. They applied the following deletion rule: *relationship for personal and warm relationship*. The students discussed the fact that the phrase *style of communication* or *style of family communication* could be employed instead of the phrase ... *a personal, warm and involved style of family communication*. After reviewing, correcting and evaluating her answer, one of the students wrote the following:

The child's self-image correlates with a style of family communication. Parental support contributes to his social skills. He finds it easier to establish relationships outside the family if he has knowledge and skills.

4.9.4.1 Assisting students with listening comprehension and note-taking problems

As the students had found taking down notes difficult in Lesson 8 (cf. § 4.9.2.2) and often became bogged down with the meaning of some words, the lecturer wrote unfamiliar words such as *dreaded*, *prevalence* and *exacerbated* on the board and discussed their meanings in order to familiarise the students with the vocabulary before they attempted the dictation passage. The lecturer then dictated the passage according to the usual procedure. In addition, the lecturer suggested that the students devise a main idea or topic sentence and substantiate why they had selected a specific sentence. Listening Passage No. 6 was used to give students the opportunity to practise creating a main idea or topic sentence, and as such it did not matter which sentence the students selected as long as they could give a reason for their choice.

LISTENING FOR THE MAIN AND SUPPORTING IDEAS PASSAGE NO. 6

Despite the fact that fear of AIDS has generated worldwide panic, people have been slow to effect changes in lifestyle in order to diminish the likelihood of contracting the dreaded disease. Many people have found it difficult to accept the fact that anyone, regardless of age or gender, can become infected with the HIV virus which leads to AIDS. In recent years it has become clear that adolescents are a high-risk group for contracting AIDS, largely because of the prevalence of unprotected sexual intercourse, which is exacerbated by teenage drug use (Swart-Kruger & Richter 1994:259).

Some students identified sentence one as the topic sentence, whereas others identified the middle sentence. After a discussion during which students shared and exchanged ideas with one another, consensus was reached that the topic sentence was situated in the middle of the paragraph. In a joint effort, class members suggested that the main idea could be "... *it was difficult to accept the fact that anyone ... can become infected with the HIV virus which leads*

to AIDS". They substantiated their choice by saying that the supporting ideas were "... adolescents are a high-risk group for contracting AIDS" and "HIV virus impact ... regardless of age and gender". They also declared that the paragraph dealt with contracting the disease and its possible victims. Titles included: *Fear of AIDS, Drug abuse and AIDS* and *Worldwide fear of AIDS*.

4.9.5 Lesson 11: Final revision of metacognitive and cognitive strategies pertaining to summarisation and listening comprehension

The aim of the final lesson was to give the students the opportunity to revise and apply the metacognitive strategies (i.e. awareness, self-regulation, monitoring and compensatory strategies) for reading comprehension and summarisation as well as the cognitive strategies applicable to summarisation (i.e. note-taking and practice) taught to students during the intervention programme.

Another aim was to revise and apply the metacognitive strategies (i.e. paying attention, self-regulation, monitoring and evaluation) for listening comprehension. In addition, cognitive strategies which had been taught to students during the intervention programme such as note-taking, practice and repetition of rules were also revised.

Summarisation Paragraph No. 6 was used to give students a chance to revise and apply all the metacognitive and cognitive strategies applicable to both the main idea and summarisation.

SUMMARISATION PARAGRAPH NO. 6

Juvenile delinquency is reaching alarming proportions in South Africa. This phenomena can be recognised by undesirable groups or gangs among teenagers in cities and rural areas. There are two types of groups, namely bored teenagers loitering about in streets and organised criminal groups who thrive on negative behaviour such as violence, aggression, sexual misconduct, drug abuse and vandalism. (Adapted from Le Roux & Smit 1992:92.)

Below is an example of a student's summary:

Juvenile delinquency is reaching alarming proportions in South Africa. It can be recognised by undesirable groups among teenagers in all areas. There are loiterers and criminal groups thriving on negative behaviour.

As can be seen, the student successfully applied the following summarisation rules: brevity, deletion of unnecessary material, substitution of superordinate terms and identification of the main idea.

The researcher and lecturer observed that the students correctly identified the first sentence as the main idea or topic sentence. Most of them used the term *two types of groups* and deleted examples of the two types, namely "... *bored teenagers loitering about ... organised criminal groups*". It is interesting to note that the student (see example on p. 183) used two superordinate terms: *It* was substituted for *This phenomena* and *all areas* for *cities and rural areas*; and the term *negative behaviour* was used in place of the list of examples, i.e. "*such as violence, aggression, sexual misconduct, drug abuse and vandalism*".

Listening Passage No. 7 was employed to give students a chance to revise and apply all the metacognitive and cognitive strategies applicable to listening for the main and supporting ideas.

LISTENING FOR THE MAIN AND SUPPORTING IDEAS PASSAGE NO. 7

Instances of child neglect and abuse are on the increase in South Africa. Neglect of the child's upbringing may be caused by various factors: tense marital problems, divorce, changing family structures and poor parent-child relationships that cause the teenager to become emotionally unstable. Because the teenager experiences that he is unwelcome at home, he may be encouraged to join groups or abuse alcohol and drugs. (Adapted from Le Roux & Smit 1992:94.)

All the students recognised that the first sentence was the main idea or topic sentence. Some students suggested the following supporting idea: *There are criminal groups and loiters thriving on negative behaviour*. The majority of the students gave one of the following two supporting idea answers: *Neglect of the child's upbringing may be caused by factors such as tense marital problems and others* or *Neglect of the child's upbringing caused by various factors*. These answers were considered adequate.

Listening Passage No. 8 was used to give students an opportunity to practise applying the metacognitive and cognitive strategies applicable to listening for the main, controlling and supporting ideas and note-taking.

LISTENING FOR THE MAIN AND SUPPORTING IDEAS PASSAGE NO. 8

Communication is the main tool of I-you relationships and the way in which people come to share a common world. It can be regarded as the key to building the trust, understanding relationships and mutual helpfulness between the educator and the educand. Child rearing is a continual process of communicating with the child. (Adapted from Pretorius 1993:11.)

Most of the students chose the first sentence as the main idea or topic sentence. Supporting ideas included: *Communication is also a tool for socialization; It is the key to building ... between the educator and the educand* (3x); *building the trust, understanding relationship and child rearing is a continual process of communicating with a child* (2x). The following titles were suggested by the students: *Communication* (6x); *Good family communication*; *Communication of I-you relationship* and *I-you relationship*. These were considered good answers.

4.10 METHODOLOGICAL ISSUES PERTAINING TO VARIABLES AFFECTING THE CONTROL AND EXPERIMENTAL GROUPS

Although much effort went into planning the study, designing the instructional programme and setting up the pre- and post-tests, the study is not without its methodological flaws. Some of the methodological problems that arose in the course of the study will be identified and discussed in this section. As stated previously, this is a pilot study and one of the functions of a pilot study is to identify potential problems that arise when researching a particular domain. The researcher's identification and discussion of such problems can serve as cautionary pointers for future researchers working in this domain.

True experimental situations typically require two groups of subjects, namely the experimental and control group. The experimental group receives a specific treatment whilst the control group receives no treatment. The use of a control group enables the researcher to refute various explanations for the effect of treatment (Ary *et al.* 1990:308). A drawback of this setup is that it is difficult for the researcher to control the variable 'time spent on the task'. Another drawback is that Hawthorne effects might arise if only the experimental group receives attention (cf. § 1.3.1 and 1.3.2). However, Ary *et al.* (1990:309) point out that the majority of educational experiments study the difference in the results of two or more

treatments instead of the difference in the results of one specific treatment versus no treatment at all. In such a case there is an experimental group which receives treatment and a control group which receives non-target treatment as well as a no-treatment control group. In other words, the one control group, rather than receiving no treatment, gets to do some or other task that is not relevant to the treatment programme. An advantage of this setup is that it is easier to control for the variable 'time spent on the task' and to counter any possible Hawthorne effects that might arise if only the experimental group gets all the attention. If one group receives irrelevant, unrelated intervention and the other group receives no treatment, it is easier to control the placebo effect. In other words, by using two control groups it lessens the possibility that the experimental group will improve because they believe the intervention programme has special qualities. It will enable the researcher to draw the conclusion that differences occur as a result of her experimental treatment.

With respect to the present study, a primary problem relates to the lack of treatment of the control group. As previously stated, the experimental group was given the intervention in a series of extra classes. In contrast, the control group was given no intervention but merely had 'free' time to prepare for the examination in a classroom provided for study purposes. This implied that the control group students had to exercise self-discipline with regard to studying. In other words, they could study in whatever way they pleased (e.g. read the textbooks, memorize, repeat facts and take notes). The control group students were instructed to refrain from talking amongst their peers while studying. The only talking allowed was when the students memorized or repeated facts aloud to themselves by means of whispering. In a sense, the fact that the control group students were reading their textbooks in order to learn for the exams can be considered that they were having an alternative "experience" rather than having no experience at all (Tuckman 1994:133).

The researcher is aware that the possibility exists that all the learners in the control group might not have spent an equal amount of time and effort on their studies during their 'free' periods which coincided with the intervention programme in which the experimental group participated. Because the control group was partially supervised, the likelihood exists that some students in the control group might have used their study time less effectively than others. For instance, they might have wasted their time during the 'free' study periods by

chatting. However, it should also be borne in mind that because the Sociopedagogics examination was their first end-of-the-year examination, it is likely that the students gave preference to this subject and spent their time study the textbooks pertaining to this subject.

In the present study, the control group students studied from the same Sociopedagogics texts as were used by the students in the intervention programme which might possibly have a reactive effect on the control subjects, that is, they might become familiar with the contents of the text and their performance might also improve in the post-test.

A possible weakness in the present study stems from the lack of control over the 'time spent on the task variable' as it was not held constant across the two groups. This a problem that arises when doing research in real-life settings, and future researchers should try to hold this variable constant when similar research is undertaken.

4.11 CONCLUSION

Although the statistical results will only be presented in the following chapter, on the basis of informal observations made during the intervention programme, it seems that when L2 students are assisted to learn how to read and listen for the main idea and summarise by means of a combined metacognitive and cognitive intervention programme, this has a positive effect on their reading and listening comprehension. This can be gauged from the fact that during the class activities the students did not appear to experience serious problems with identifying the main idea when it was located in the first sentence. Despite the fact that some of the students initially found it difficult to recognise the main idea when it was located elsewhere in the paragraph, their answers in the classroom improved considerably after repeated practice and revision of these strategies.

The students' summarising ability also appeared to improve in the classroom situation. They applied the cognitive strategies applicable to summarisation. This was revealed in their ability, during classroom activities, to select a topic sentence or create one; to delete trivial and redundant material; and to provide a superordinate term for members of a category (e.g. substitute *animals* for *cats*, *dogs* and *cows*) or a list of items. This implied that they were

able to differentiate between important and non-important information.

The importance of providing L2 students with advance organisers (i.e. organising principles) for listening comprehension such as instructions to pay attention; listen for the main idea; find a supporting idea; and find a title for the passage cannot be underestimated. Although at times they found the dictation section of the intervention programme a little difficult (e.g. they tried to write down every word instead of leaving gaps, and complained that they initially found it difficult to keep up with the dictation pace of the lecturer), it never prevented them from applying the strategies and trying their utmost. This can be seen from their selection of suitable main ideas, and appropriate and creative supporting ideas, as well as controlling ideas (e.g. titles) they provided for the dictation passage. The students effectively applied the rules for reading for the main idea to listening for the main idea. This meant that they had managed to overcome some of the difficulty they experienced when they previously had to apply knowledge (e.g. reading for the main idea) to a new situation (e.g. listening for the main idea).

The intervention programme emphasized self-instructional training and because students had to apply the steps and metacognitive strategies to actual reading and listening passages, it also promoted a reflective problem-solving style whilst reading, listening and summarising and combated reliance on rote learning. Because the intervention programme paid specific attention to metacognitive awareness training, self-regulation/monitoring training and metacognitive compensatory strategies, it seemed to serve as an initial step towards fostering independent learning and students were encouraged to employ planned, systematic problem-solving behaviour which in turn led to improved concentration whilst reading, listening and summarising.

Based on informal classroom observation, it appeared that the intervention programme employed had been successful as far as the students' motivation was concerned. This could be gauged from the fact that the students became active participants in their own learning, provided feedback spontaneously and were at all times prepared to exchange and share ideas within the group. They were quite willing to use and practise the metacognitive and cognitive strategies that the lecturer explained and modelled. They were also prepared to take turns to

model the steps of the reading and summarising plan. In general, their attitudes, beliefs and judgements about their learning, reading and listening comprehension seemed to be positive. The intervention programme also focused on interactive communication between the students and the lecturer. By means of lecturer-student dialogues the lecturer initially guided and supported the L2 students to achieve their goals until finally the students were able to work unassisted and independently.

4.12 SUMMARY

This chapter describes the metacognitive intervention programme used to improve the reading and listening comprehension of L2 tertiary students. Before the intervention programme, it appeared as if the L2 students had the following problems in common: they found it difficult to learn for a test and to take down summarisation and lecture notes because they were unable to differentiate between important and non-important information, i.e. the main, controlling and supporting ideas. They revealed inert, passive, non-reflective, unplanned, unsystematic and dependent problem-solving learning styles and often relied on rote learning. They also found it difficult to apply knowledge to new situations. In order to try and address these problems the L2 students were taught a combination of metacognitive and cognitive strategies. The assumption was that students would benefit from being taught three metacognitive skills applicable to studying, namely, metacognitive awareness (i.e. declarative, procedural and conditional knowledge), metacognitive self-regulation/monitoring and metacognitive compensatory strategies.

The aim of teaching the L2 students metacognitive strategies applicable to reading comprehension and listening comprehension by means of dictation, was to promote self-awareness and self-regulation/monitoring of learning, and to encourage self-instruction.

The lessons took the following form: The lecturer first informed students of what the strategy was, when, where and how to use a specific strategy, as well as the reason why it ought to be used. She then modelled the criterion behaviour in the hope that students would eventually independently perform the behaviour. The approach encouraged social exchanges and the sharing of knowledge amongst the lecturer and her students as well as amongst fellow

students. Opportunity was provided for practice, guidance and feedback.

The lessons comprised 13 units (i.e. 9 single and 2 double lessons) and were given in a group context. The reason for this was that the students only had a limited amount of time to attend lessons before their final exams commenced. The materials employed in the intervention programme consisted of passages from *College Reading and Study Skills* (McWhorter 1992; 1995), passages from the students' prescribed textbooks (Le Roux 1992; 1993; 1994) and previously used class application exercises. The approach was an economical and effective way in which to instruct small groups.

The intervention programme consisted of four phases. Phase One emphasized reading for the main idea. Firstly, the lecturer explained to the students what a learning strategy is, why it should be learned, when and where it should be used, and how it could be employed. Secondly, the lecturer tried to raise the students' awareness that task characteristics, study strategies and their own abilities influence the way in which they read or study. Thirdly, the lecturer demonstrated the difference between controlling, main and supporting ideas. Fourthly, the lecturer taught the students a cognitive strategy for reading for the main idea, namely, the rules of identifying the sentence containing the main idea. Fifthly, the lecturer guided students to employ a reflective problem-solving style during reading. Sixthly, the lecturer encouraged students to apply the metacognitive strategy applicable to *Reading for the Main Idea Plan* in a group and individually. Finally, the lecturer gave students a chance to reinforce the strategies acquired for reading comprehension by creating practise and revision opportunities.

Student activity with respect to reading for the main idea in Phase One comprised the following: the students had to centre their learning (i.e. focus their attention); arrange and plan their learning (i.e. identify the purpose of reading, regulate their learning by using a think aloud and self-questioning technique); evaluate their reading comprehension by means of self-testing/self-correction; and monitor and check their answers by means of a model answer provided by the lecturer to ascertain whether the assignment had been successfully completed.

During Phase Two, the students had to transfer the strategies learnt during reading comprehension to listening comprehension, viz. identification of main, controlling and supporting ideas. The aims of this lesson were to demonstrate to students that listening is a process that is similar to reading because they both require the ability to identify the main, controlling and supporting ideas; and to teach the students cognitive strategies for listening comprehension; such as note-taking by means of dictation, in preparation for real lecture note-taking situations which are more open-ended. In addition, the students were required to repeatedly practice the rules of listening comprehension. It was assumed that students would transfer the rules, principles, strategies and habits and knowledge gained from the *Reading for the Main Idea Plan* to another area, namely listening and note-taking, thereby facilitating problem-solving behaviour in a new situation by referring to previous experience (Feuerstein *et al.* 1991:151). In other words, it was hoped that students would gain insight and transfer the knowledge acquired from reading for the main idea to a new situation, namely listening and note-taking.

Student activities with regard to listening comprehension and note-taking during Phase Two entailed the following: the students centred their learning (i.e. selective attention); arranged and planned their learning (i.e. students identified the purpose of the listening task, namely, to identify the main, controlling and supporting ideas) and planned for the listening and note-taking task by means of cues. In addition, the students evaluated their own learning by way of self-monitoring.

In Phase Three, summarisation was accentuated. Students were made aware of what a summary is, how they could use specific steps to create a summary and why and when it is useful to write a summary. Students were also made aware that the cognitive strategy (i.e. the rules) applicable to reading for the main idea and the topic sentence is also applicable to summarisation. Students were also taught cognitive strategies for summarisation such as the following: to delete irrelevant material (e.g. examples and descriptions), to use one word instead of many; to use a superordinate term for a list of items or actions and to invent a main idea when it is not explicitly stated (Brown *et al.* 1983; Brown & Day 1983; Baker & Brown 1984; Garner 1987). It was hoped that students would master the rules for reading and summarisation through practice and repetition and would spontaneously apply the rules

of reading for the main idea to summarisation.

Student activity with respect to summarisation in Phase Three comprised the following: the students had to centre their learning (i.e. focus their attention); arrange and plan their learning (i.e. identify the purpose of summarisation, regulate their learning by using a thinking aloud and self-questioning technique). By means of self-testing and review the students had to evaluate their reading comprehension and application of summarisation rules. They then had to monitor and check their answers by means of a model answer provided by the lecturer in order to ascertain whether they had picked out the essential meaning conveyed in the paragraphs, and distinguished what is important from what is not.

Phase Four consisted of the remaining revision lessons. During the initial revision lesson there was an emphasis on revising the *Reading for the Main Idea* strategy and listening for the main, controlling and supporting ideas whilst taking down dictation. During the remaining lessons revision took place of both the summarisation strategy which incorporates the steps of the *Reading for the Main Idea Plan* and the listening strategy for the main, controlling and supporting ideas whilst taking down dictation (cf. Tables 4.1, 4.2 and 4.3).

Based on informal classroom observation, the intervention programme appeared to motivate the students and their reading and listening comprehension and summarising ability seemed to improve.

CHAPTER 5

FINDINGS: RESULTS AND INTERPRETATION

5.0 INTRODUCTION

The aim of this chapter is to present the findings of this empirical study. The term *findings* refers to the pre- and post-test results of the t-tests and their interpretation. As stated in Chapter 1 (cf. § 1.2), in order to test the effect of teaching black L2 tertiary students a combination of metacognitive and cognitive strategies for reading and listening comprehension, the following aim was set:

- To ascertain whether an experimental group comprising 'at risk' black L2 tertiary students would benefit academically from being taught learning strategies, specifically a combination of metacognitive and cognitive strategies applicable to reading and listening comprehension, compared to a control group that was not taught these skills.

In addition, it was hoped that the findings of this study would make a contribution to L2 theory and practice in South Africa by showing the importance of a combination of metacognitive and cognitive instruction in tertiary learning and teaching situations.

Although the students in both the experimental group and the control group differed with regard to language, their culture, educational background and academic problems were similar (cf. § 5.1.1 for a more detailed exposition) and they could therefore be considered to be fairly homogeneous. As English was their second or third language and some students' problems were of a combined EAP/ESP nature (cf. § 2.3.2), it can be said that the students had "mixed status" (Morley 1991). To find out what study strategies the students employed whilst studying and the areas in which they experienced difficulty, it was decided to examine the students' class tests and notes and to speak to the students and their lecturer informally. By means of this subjective method of data collection (which proved to be a good way to acquire an initial, overall impression of how these students approach their study tasks) the

researcher was able to identify problem areas. These included:

- students appeared to find learning for tests and exams difficult;
- they found that they wrote pages of notes in preparation for tests instead of summarising their notes in a brief, concise, logical and organised manner;
- they found it difficult to differentiate between the main and supporting ideas in reading and listening comprehension passages.

This range of patterns indicated that the students had comprehension problems when reading textbooks and listening to lectures, and ineffective study skills. An intervention programme was designed to address some of these problems and to determine whether the students would benefit from the explicit teaching of metacognitive and cognitive strategies for identifying main ideas, summarising and note-taking.

The methodological procedure, including the subjects, test materials and test procedures will first be discussed. The scoring will then be described, followed by comments about the concept *hypothesis* as used in empirical research. The statistical techniques used to test the hypotheses in this study will be outlined and the results will then be provided.

5.1 METHODOLOGICAL PROCEDURE

In some research situations it is not practical to rearrange students into different groups or classes at will. According to Seliger & Shohamy (1989:148), a quasi-experimental design is representative of the conditions found in L2 educational contexts. A quasi-experimental design has the following characteristics: it has both pre- and post-tests and experimental and control groups, but no random selection of subjects (Nunan 1992:41). In the present study, there was only one Sociopedagogics class comprising 100 students. I invited students in the Sociopedagogics class to participate in the research and 20 volunteered to participate in the experiment. After I had 'inherited' the 20 students in the class, I randomly assigned 10 to the experimental and 10 to the control group (as in a quasi-experimental situation). Both groups were given pre- and post-tests. The experimental group received the treatment whereas the control group received no treatment. After the treatment period, the

performances of the experimental and control groups were both measured and compared (Lynch 1996).

5.1.1 Subjects

The subjects for this research project were 20 adult black South African L2 English speaking full-time students studying in Pretoria. Their ages varied between 23 and 30 years. They had all matriculated through the former *Department of Education and Training* and been accepted for a Sociopedagogics course at tertiary level, however, their lecturer felt they could benefit from being taught certain academic and study skills. There were 8 males and 12 females who were divided into an experimental and control group with an equivalent gender distribution, i.e. 6 females and 4 males in each group. The majority of students (nine) were Northern Sotho speakers, followed by four Tswana, three Venda and two Zulu speakers. There was also one speaker each of Xhosa and Tsonga.

5.1.2 Test Materials

Even though the Human Science Research Council (HSRC) has developed several standardised comprehension tests, at the time this research was undertaken there were no appropriate standardized tests for assessing L2 reading and listening comprehensions that focused specifically on main idea identification and summarising abilities. For this reason, the researcher designed pre- and post-tests using paragraphs from the textbook as test material for pre- and post-tests. In order to test for reading and listening for the main idea and summarising ability, both groups were assessed by means of specific paragraphs taken from their *Sociopedagogics* text books (cf. Appendices A, E, I and M). The aim of using the textbooks was two-fold:

- The L2 students were familiar with the textbook, which meant they had prior or background knowledge of the subject.
- The textbooks were culturally relevant as the content pertained to universal and specifically African Family Education/Sociopedagogical situations with which the students could identify.

Whenever practicable, steps should be taken to ensure reliability of testing instruments which are researcher-designed and not standardised. This would eliminate problems which might exist for instance, if the post-test were easier than the pre-test. One such method is the alternate-form reliability test. In the present case, reliability could have been gauged by piloting the testing instruments on another equivalent group, giving half the group test A followed by test B and testing the other half in reverse order on the same day. (This matter will be taken up again in § 6.2.)

5.2 TEST PROCEDURES

In both the pre- and post-tests (cf. Appendices A, E, I and M) the 20 subjects were each given two sheets of paper. The reading comprehension paragraphs were typed on the first page. Space was allocated on the first page for the students to fill in (1) the topic sentence containing the main idea, (2) the controlling idea and (3) a summary. The second page had space for the students to take down two dictation passages and to answer two questions pertaining to the main idea and one related to the controlling idea. As previously stated, the paragraphs used were adapted from their Sociopedagogics textbook. For instance, the researcher changed the word order slightly to simplify it and provided the synonym "modern" for the word "contemporary" (cf. Appendix M). The original paragraphs did in fact possess clearly identifiable topic sentences and it was thus not necessary to "doctor" main ideas in the paragraphs.

During the testing situation both *written* and *oral* instructions were given to the students about the format of the test. Before giving the instructions and reading the questions (cf. Appendices A and E) which required the response of a topic sentence containing the main idea, students were specifically *told* in both the pre- and post-tests that the main idea is usually found in the topic sentence. Their attention was drawn to the fact that they would be requested to identify the main idea, preferably in a topic sentence. However, they were also told that if they could not find the specific sentence, they could just provide the overall main idea in each of the two reading and listening comprehension passages. The lecturer then read the instructions and questions aloud to both groups, and the students listened whilst silently reading the questions in front of them. The instructions were as follows:

1. Read the following two paragraphs carefully.
2. Choose the sentences containing the main ideas in the two paragraphs on which the summary is to be based by underlining them and then writing them out in the space provided below.
3. Write a summary of 77-80 words in the space provided below bearing in mind that you must use full sentences and that the sentences must make sense.
4. Supply a suitable title or main heading (i.e. controlling idea) of not more than 5 words for both paragraphs.

The instructions in the listening comprehension section were:

1. Listen carefully to the following passage whilst you write down the information.
2. After you have written the passage, underline the topic or main sentence.
3. Then answer the questions on the typed sheets pertaining to the topic sentence or main idea.
4. Supply a suitable title or main heading (i.e. controlling idea) of not more than 5 words for both paragraphs.

In addition to what had been done in the pre-test, the subjects in the post-test were also expected to provide two supporting ideas in the listening comprehension section (cf. Appendices E and M).

During both the pre- and post-tests the 20 subjects were tested in a regular lecture room during a time slot which suited all of them. In order to control for tester reliability, a second lecturer was asked to administer the tests and to read the instructions in both the pre- and post-tests.

5.2.1 A brief description of the intervention programme

After the pre-test the 20 students attended their normal Sociopedagogics lectures. In addition, the 10 students in the experimental group attended an extra 13 lessons where they were taught a combination of metacognitive and cognitive strategies as described in Chapter 4.

Examples of the metacognitive strategies taught were: focusing attention, identifying the purpose of reading/summarising, awareness/self-regulation and monitoring of reading and summarising activities, planning, self-questioning, checking and evaluating activities. Examples of metacognitive strategies for listening comprehension by means of note-taking included: selective attention for cues, identifying the purpose of listening, regulation/monitoring of comprehension, self-testing, monitoring errors and checking for success. It was hoped that the knowledge gained during reading comprehension would be bridged or transferred to listening comprehension when the experimental group was compared to a control group. Examples of cognitive strategies were: procedures of reading for the main idea, summarising and note-taking.

The intervention programme took place three times a week, for a period of four weeks. The control group attended their usual lectures without the benefit of these extra lessons. Students in the control group had their own free time while the 10 students in the experimental group were having these extra lessons. They spent their free time learning and preparing for the examinations. The possibility exists that when the control group were reading their textbooks they became familiarised with the content (cf. § 4.10). This issue will be dealt with later in this chapter (cf. § 5.10.2).

5.3 THE SCORING PROCEDURE

The tests in this study were scored objectively according to a marking memorandum. However, subjective-objective criteria occur on a continuum, and some of the questions may have depended on greater marker subjectivity than others. Hughes (1989:24) states that scorer reliability is important in evaluation. He (1989:42) suggests that where "testing is subjective, all scripts should be scored by at least two independent scorers". To ensure that the scoring of the different aspects of the tests was fair and objective, two markers scored the tests independently. They each arrived at the same scores.

The following marks were allocated to each pre- and post-test:

- Identifying the main idea whilst reading (4 marks);

- Summarisation: Applying the deletion rule (3 marks); applying the superordination rule (1 mark); writing the summary in the suggested number of words or fewer (1 mark); finding an appropriate controlling idea of the required length (2 marks).
- Listening for the main idea (4 marks); finding an appropriate controlling idea of the required length (2 marks);
- A total of 17 marks was allocated at the end for the pre-test.
- Two additional marks were given during the post-test only, for listening for two supporting ideas. This meant that the total marks for the post-test was 19 marks.

The mark allocation for each of the pre- and post-test questions (i.e. reading for the main idea, the controlling idea and summarisation as well as listening for the main and controlling ideas) was written on the blackboard. The lecturer administering the tests pointed this out to the students.

The following section describes the way in which marks were allocated to the various components of the tests.

5.3.1 Scoring procedure for identifying the main idea

During the intervention programme L2 students had been taught a cognitive strategy for identifying the topic sentence containing the main idea (cf. § 4.6.2.1). It was decided to use McWhorter's (1995:121-123) suggestions on where the topic sentence is most likely to be found in a paragraph. Positions included the *first sentence*, *last sentence*, *middle of the paragraph* and *first and last sentences*. The paragraphs used by students during the intervention programme and the pre- and post-tests were consequently adapted to reflect these positions. Cognizance was also taken of the fact that the main idea is not always explicitly stated and that students sometimes have to infer the main idea (Brown & Day 1983). In each case, 4 of the marks of the pre- and post-test were allocated to the correct identification of the main idea in the test passages.

There were two paragraphs for identifying the main idea in the pre-test. In both Paragraph 1 and 2, one mark was given for recognising a main idea by either underlining or writing it. Another mark was allocated for underlining or writing out the topic sentence containing the

main idea. In both paragraphs the topic sentence appeared in the first sentence (cf. the underlined sentences in Appendix B).

There were also two paragraphs for identifying the main idea in the post-test. In both Paragraph 1 and 2, a mark was for allocated for recognising a main idea by either underlining or writing it. Another mark was allocated for underlining or writing out the topic sentence containing the main idea. In the first paragraph the topic sentence was located in the first sentence. In the second paragraph, there were two topic sentences, namely, the first and last sentences (cf. the underlined sentences in Appendix J).

5.3.2 Scoring procedure for summarisation

During the intervention programme, the L2 students were taught a cognitive summarisation strategy based on some aspects of the summarisation research undertaken by Brown & Day (1983) as well as Hare & Borchardt (1984). The following aspects were considered important: *deleting trivia* (Brown & Day 1983) or *unnecessary detail* (Hare & Borchardt 1984); and applying the *superordination rule* (Brown & Day 1983), which is similar to the term *collapsing lists* (Hare & Borchardt 1984). *Brevity* is also an important aspect of summarising (Kühn *et al.* 1987). This necessitates writing the text in fewer words than the original length and retaining the gist. The former three aspects were built into the test.

5.3.2.1 Application of deletion rule

In the pre-test the subjects obtained 1 mark on each occasion when unnecessary descriptive words were omitted from both paragraphs. For example in **Paragraph 1**, Sentence 2 can be deleted as it repeats the same idea as Sentence 1 (= 1 mark), and the words *positive or negative* can be deleted as they are redundant (= 1 mark) (cf. the word/sentences in italics in Appendix B).

In the post-test, the subjects were required to apply the deletion rule at least three out of four times, i.e. 1 mark x 3. For instance, examples of subdisciplines can be deleted "*such as Fundamental Pedagogics, Didactical Pedagogics, Psychopedagogics, Historical Pedagogics*

and Orthopedagogics" (= 1 mark) (cf. the phrases in italics in Appendix J).

5.3.2.2 Application of the superordination rule

One mark was given for the use of a superordinate term to replace many words in the pre-test in either **Paragraph 1** or **2**. Examples included using the word *milieu* or *environment* for "family and the school", and using the word *people* or *society* to substitute for "educators, parents and community" (cf. the phrases in bold in Appendix B).

In the post-test there were three examples where the superordination rule could be applied in the second paragraph. The subjects could choose **any** one of the three examples for 1 mark. For example, *community* for "family ... peer group", *many relationships* instead of "... intimate and formal social relationships and social relationships", using *relationships and situations* instead of "... intimate and formal social relationships and social relationships" (cf. the phrases in bold in Appendix J).

5.3.2.3 Application of brevity in summarisation

In the pre-test, one mark was allocated for summarising the two paragraphs in 80 words or fewer and keeping the gist of the paragraphs. No marks were awarded if students wrote the summary within the allocated number of words, but did not quite retain the gist of it. If they were unable to write the summary in the suggested number of words but retained the gist, they were also not awarded a mark. The scoring procedure in the post-test was similar to that in the pre-test. The only difference was that the length of the summary differed (50 words or fewer).

5.3.3 Scoring procedure for identifying the controlling idea

As stated previously (cf. § 4.6.2), the controlling idea is the broad or general idea of a chapter or series of paragraphs and is similar to a main idea (McWhorter 1995). During the intervention programme emphasis was placed on practising how to identify the controlling idea. This was done by requesting the L2 students to provide a suitable heading for the two

summarisation paragraphs. During the pre- and post-test, 2 marks were given for appropriateness and length, i.e. for a controlling idea by means of an appropriate title (1 mark) that did not exceed 5 words (1 mark). Some examples of appropriate titles supplied by the students in the pre-test were:

- Education in African society;
- Role of education in SA;
- Interaction between Education and Society.

Below are some examples of post-test titles supplied by the students which were considered suitable:

- Family education;
- The importance of family education (or Sociopedagogics);
- Family education is a science.

5.3.4 Scoring procedure for listening for the main idea

During the intervention programme the L2 experimental group were initially taught the procedures and rules of reading for the main idea as specified by McWhorter (1995). The students then had to apply this knowledge in another situation, namely listening for the main idea whilst taking down dictation.

With regard to note-taking from dictation, students were not penalised for spelling or minor punctuation errors, as the aim of the exercise was to practice taking down dictation and underlining the main idea.

As was the case in the pre-test for reading for the main idea section, there were two paragraphs in the pre-test for listening for the main idea (cf. § 5.3.1). In both Paragraphs, one mark was given for identifying the main idea and underlining/writing it. An extra mark was given for recognising the topic sentence containing the main idea by underlining or writing it down. In both paragraphs the topic sentence appeared in Sentence 1 (cf. the

underlined sentence in Appendix F).

The scoring procedure for the post-test was similar to that of the pre-test. In both Paragraphs 1 and 2, a mark was allocated for supplying a main idea. An extra mark was given for correctly identifying the topic sentence containing the main idea by underlining it or writing it down. In Paragraph 1, the main idea was located in the first sentence and in Paragraph 2 the main idea was located in the last sentence (cf. the underlined sentence in Appendix N).

5.3.5 Scoring procedure for listening for the controlling idea

As was the case with reading for the main idea during the intervention programme, the importance of finding the controlling idea for both the dictation passages was also stressed. In each case, a total of 2 marks of the pre- and post-test were allocated to the correct identification of a controlling idea which was both appropriate and of the desired length. Some examples of appropriate titles for the dictation passage which were supplied by the students were:

- The problems of teenagers;
- Rebellion and alcohol abuse;
- Juvenile delinquency.

Below are some examples of suitable post-test titles for the dictation passage which were supplied by the students:

- An anti-child environment;
- Anti-child culture (or milieu);
- Educational situation in South Africa.

5.3.6 Scoring procedure for listening for the supporting idea

The students had been taught how to identify a supporting idea during the intervention programme (cf. § 4.6.2). During the post-test they were instructed to listen for the

supporting idea during the dictation passages. In the post-test only, 2 marks were given for finding 2 supporting ideas. Examples of appropriate supporting ideas supplied by the students included the following:

- Negative social, economic and political influences...;
- SA family or African child finds himself in an educational emergency situation;
- The African child in particular, experiences childhood as being traumatic.

After marking and scoring the pre- and post-tests, a mean score was worked out for both groups for each test, and further statistical procedures were then applied to the scores, as described below.

5.4 THE CONCEPT *HYPOTHESIS*

In this section the concept *hypothesis* will be briefly explained. This will be followed by a discussion of the statistical techniques used in the present study and some background on the t-test will be given.

Reber (1985:336) points out that the term *hypothesis* refers to "any statement, proposition or assumption that serves as a tentative explanation of certain facts". Nunan (1992:230) states that a hypothesis is a "formal statement about an expected relationship between two or more variables which can be tested through an experiment". Similarly, Dane (1990:33) asserts that the term *hypothesis* has to do with a statement that describes a relationship between variables which can be tested in research.

Initially a researcher has speculations about "the existence of relationships between variables" (Cohen & Holliday 1982:120). Then she has to reach an objective decision whether a specific hypothesis is confirmed by a set of data. *Hypothesis testing* refers to "accepting or rejecting explanations" of relationships between variables with "known degrees of certainty" (Cohen & Holliday 1982:120).

A hypothesis cannot be proved or disproved. It can only be tested in terms of probability.

It is common practise to use terms such as accepted and rejected, confirmed or not confirmed. When the results turn out as predicted, then the hypothesis is consistent with evidence. When the results are significantly different from those expected by the hypothesis, the hypothesis is rejected (Kurtz & Mayo 1979).

5.4.1 The null and alternative hypotheses

To discover whether there is a statistically significant difference between variables, the hypothesis is usually stated as a *null* hypothesis (H_0). The null hypothesis is a hypothesis of no difference. It is usually formulated for the express purpose of being rejected. If the null hypothesis is not rejected, then any observable difference between samples is regarded not as a true difference but "as a chance occurrence resulting from sampling error alone" (Levin 1973:132; 1977).

When the null hypothesis is rejected, and the actual *research* or *alternative* hypothesis (H_1) is substantiated and accepted, it implies that there is a difference between variables (Hatch & Farhady 1982:4). If the obtained difference between sample means is very large "it can no longer be attributed to sampling error" but to actual differences observed in the data (Levin 1977:121).

5.4.2 Levels of significance or confidence

When the researcher wants to find out if the obtained sample difference is statistically significant and not due to sampling error, it is usual to set up a *confidence* or *significance* level at which the null hypothesis can be rejected or the research hypothesis can be accepted with confidence (Levin 1973:142). Common values attributed to the level of significance are .05 and .01. If there is a 1 in a 100 chance that the difference is due to chance, the difference is said to be *highly significant* at the 1% level. This is written as $p \leq .01$. When there is a 5 percent chance that the difference is due to chance, the difference is said to be *significant* at the 5% level (Ferguson 1981:175). The probability figure, p , is .05. This is written as $p \leq .05$. The null hypothesis is thus rejected when the significance level is 5 percent or below. If there is a 10 percent chance that the difference is due to chance, the

difference is said to be *marginally significant*. Tate (1965:224) states that a significance level of between 10% and 5% indicates that a null hypothesis is considered doubtful but not "clearly rejectable". In the present study, the significant level was set at the 5% level of significance as this is often the norm in the social sciences and applied linguistics. In order to discriminate between levels of significance, I will also identify results that occurred at the 1% level of significance (i.e. *highly significant* indicated as **). *Significant* results at the 5% level are indicated as *.

5.4.3 Hypothesis formulation

A research hypothesis can be directional or non-directional. *Directional* hypotheses "make a prediction about the direction of the possible outcome of research" (Seliger & Shohamy 1989:62). They also specify the direction in which the difference lies (Cohen & Holliday 1982:123) which can be either positive or negative. A directional hypothesis is often formulated when there is strong evidence from previous research, about the nature and direction of a relationship between variables (Hatch & Farhady 1982:86; Pretorius 1993:104). A test of this kind is referred to as a one-tailed test since the "direction in which the difference is predicted to lie" is concerned with "only one 'tail' of the distribution" (Cohen & Holliday 1982:123; Pretorius 1993:104).

A *non-directional* hypothesis states that a difference exists between samples. No prediction is made regarding the direction of the difference. A test of this type is also known as a two-tailed test because it "locates critical values at both 'tails' of the distribution" (Ferguson 1981:175; Cohen & Holliday 1982:123). It is easier to reject a hypothesis with a one-tailed test than a two-tailed test. Even though there is some evidence in the literature to predict the direction of the outcome of the research, I nevertheless chose to formulate a non-directional hypothesis using a two-tailed test, because this offers a more conservative, stringent test for my non-directional hypotheses. The non-directional hypotheses in the present study merely hypothesise that there will be a difference between the experimental and control groups but make no prediction regarding the direction of the outcome of the research. The techniques that were employed to test the hypotheses in the present study are discussed in the following section.

5.4.4 Statistical techniques

The statistical data in the present study were all analyzed by computer, using the 1995 version of the SPSS Package (Norusis 1993; SPSS 1995). For all the hypotheses a significance level of $p = .05$ was chosen. The statistical technique employed to test 11 hypotheses, was the t-test.

The Student t-test (t) is employed to compare the mean performance of two groups. The t-test indicates whether or not two groups differ on a particular variable (Dane 1990:240). The difference between two groups might be so slight that it indicates a co-incidental difference. The t-test will indicate this probability (De la Rey 1983:21). By means of the t-test it is possible to test the null hypothesis that the mean performances in the two groups are not significantly different. This implies that the means are so similar that the sample groups can be considered to have been drawn from the same population. In the present study, two t-tests were used, namely, a *within group t-test for paired samples*, where the two means come from the same group of subjects (e.g. from pre- and post tests) and a *t-test for independent data*, where pre- and post-test differences between the means of the experimental and control groups are compared.

In order to use the t-test, certain assumptions are made:

- The underlying population from which the samples are drawn is normal. If the samples are large, normality can usually be accepted. According to Levin (1977:134), the use of t-tests for sample sizes as small as "5, 10, or 20 respondents" is in order.
- The population variances should be equal (or not be significantly different). In the present study, the t-test for equality of means was done and from Table 5.1, we see that the variances are equal for the 10 tests ($p \geq 0,05$). Hypothesis 11 does not have a pre-test.

5.5 COMPARISON OF THE TWO GROUPS BEFORE INTERVENTION

Initially, 20 students in a Sociopedagogics class volunteered to participate in the present research. I randomly assigned 10 students to the experimental and 10 students to the control group (cf. § 5.1). A t-test for independent data was applied to evaluate whether the two groups were initially significantly different on the 9 variables.

TABLE 5.1
PRE-TEST FOR MEAN DIFFERENCE BETWEEN THE TWO GROUPS
T-TEST FOR INDEPENDENT DATA

Variables	Mean difference	Std error difference	t	df	Sig (2-tailed)
Pre-test scores for H1 - H9	-.800	.587	-1.36	18	.190

The pre-test average (mean) score for the control group was 1.9 (SD 1.197) compared to 2.7 (SD 1.418) for the experimental group. The mean difference between these scores was -.800 (cf. Table 5.1 on p. 205). The results show no significant difference between the two groups ($p = 0.190, \geq 0,05$). These results also indicate that the experimental group (E1) and the control group (C1) were evenly matched (i.e. the pre-test t-test shows no significant differences).

The findings from the 11 hypotheses will be interpreted and discussed in the following sections. In order to familiarise the reader with the different aspects of the general hypothesis (H11) pertaining to the effectiveness of metacognitive (i.e. metacognitive awareness, selective attention, self-regulation, evaluation and monitoring) and cognitive (i.e. procedures and rules) strategy training, Hypotheses 1 to 9 will first be discussed (cf. § 5.6 to 5.8). Thereafter Hypothesis 10, which only has a post-test, will be discussed (cf. § 5.9). Finally, the overall hypothesis (H11) will be presented (cf. § 5.10). While H11 is the more general hypothesis that looks at the effects of the intervention programme as a whole, the subhypotheses (1-10) give depth to the study, as they relate to specific aspects of the general hypothesis.

5.6 HYPOTHESIS RELATING TO READING FOR THE MAIN IDEA

Hypothesis 1

H1: There will be a significant difference in the mean scores that measure the ability to identify the sentence containing the main idea in the pre- and post-tests of the experimental and control groups respectively.

The assumption underlying Hypothesis 1 is that if students are trained to recognise the topic sentence containing the main idea they will be able to apply the rules to other reading paragraphs.

5.6.1 Results

The null version of Hypothesis 1 can be formulated as follows:

H01: There will be no significant difference in the mean scores that measure the ability to identify the sentence containing the main idea in the pre- and post-tests of the experimental and control groups respectively.

A *within group t-test for paired samples* was performed to compare the difference between the mean scores on the pre- and post-tests of each of the two groups. The results in Table 5.2 show the following:

TABLE 5.2
PRE- AND POST-TEST DIFFERENCES IN MAIN IDEA IDENTIFICATION

Group	Mean	SD	t	df	Sig
Experimental group	-67.5000	23.7171	-9.000	9	** .000
Control group	-32.5000	35.4534	-2.899	9	* .018

The results reveal a highly significant difference between the pre- and post-test scores of the

experimental group and a significant difference for the control group. The mean difference for the experimental group is larger than that of the control group (67,50 vs 32,50) which means that despite the fact that both groups improved significantly, the experimental group appears to have made a greater improvement. The null hypothesis for H1 is therefore rejected for both groups at the $p \leq .05$ level.¹

5.6.2 Discussion

An important skill in comprehending text is that of identifying the main idea. Various researchers (Baker & Brown 1984; Garner 1987; Padron & Waxman 1988; Tarlow 1990) stress the importance of teaching main idea strategies in order to improve reading comprehension ability. The results of the present study confirm that reading for the main idea can be improved by means of a combination of metacognitive and cognitive strategies. These findings are also consistent with the study performed by Baker & Brown (1984), which shows that students can successfully be taught to apply topic sentence rules.

5.7 HYPOTHESES RELATING TO SUMMARISATION

There are five summarisation hypotheses in all. Four look at particular aspects of summarisation, and the other measures overall summarisation abilities.

5.7.1 Hypothesis 2

H2: There will be a significant difference in the mean scores that measure the ability to write a summary passage in the suggested number of words in the pre- and post-tests of the experimental and control groups respectively.

5.7.2 Results

The null version of Hypothesis 2 can be formulated as follows:

¹ The negative signs are due to the fact that in the SPSS (1995) programme the mean difference is calculated as: Mean (pre-test) - Mean (post-test).

Ho2: There will be no significant difference in the mean scores that measure the ability to write a summary passage in the suggested number of words in the pre- and post-tests of the experimental and control groups respectively.

A *within group t-test for paired samples* was performed to compare the difference between the mean scores on the pre- and post-tests of each of the two groups. The results in Table 5.3 indicate the following:

TABLE 5.3
PRE- AND POST-TEST DIFFERENCES IN APPLICATION OF BREVITY RULE

Group	Mean	SD	t	df	Sig
Experimental group	-50.0000	52.7046	-3.000	9	* .015
Control group	-10.0000	31.6228	-1.000	9	.343

When the pre- and post-test scores of each of the two groups' mean scores of tests were compared, statistically significant differences were obtained for the experimental group but not for the control group. The null hypothesis for H2 is rejected for the experimental group only.

5.7.3 Discussion

According to Kühn *et al.* (1987), the ability to write the summarisation text in fewer words than the original length of a passage while retaining the meaning, is an important aspect of summarising. The present findings show that students can be successfully taught to write a summary in a brief and exact manner by means of training them in a combination of metacognitive and cognitive strategies.

5.7.4 Hypothesis 3

H3: There will be a significant difference in the mean scores that measure the ability to apply the deletion rule in the pre- and post-tests of the experimental and control groups respectively.

5.7.5 Results

The null version of Hypothesis 3 is formulated as follows:

Ho3: There will be no significant difference in the mean scores that measure the ability to apply the deletion rule in the pre- and post-tests of the experimental and control groups respectively.

A *within group t-test for paired samples* was performed to compare the difference between the mean scores on the pre- and post-tests of each of the two groups. The results in Table 5.4 show the following:

TABLE 5.4
PRE- AND POST-TEST DIFFERENCES IN APPLICATION
OF DELETION RULE

Group	Mean	SD	t	df	Sig
Experimental group	-43.3380	22.4982	-6.091	9	** .000
Control group	-13.3340	32.2070	-1.309	9	.223

Again, the mean scores from the pre- and post-tests show a highly significant difference only for the experimental group. The null hypothesis of H3 is therefore rejected for the experimental group only.

5.7.6 Discussion

The findings of the studies of Brown & Day (1983) and Hare & Borchardt (1984) show that students who were taught the deletion rule could successfully apply it. Baker & Brown (1984:373) also found that students understood the basic idea behind a summary, namely to remove unnecessary material. Similarly, the findings of the present study show that students can be effectively trained to apply the deletion rule when summarising.

5.7.7 Hypothesis 4

H4: There will be a significant difference in the mean scores that measure the ability to apply the superordination rule in the pre- and post-tests of the experimental and control groups respectively.

5.7.8 Results

The null version of Hypothesis 4 can be formulated as follows:

Ho4: There will be no significant difference in the mean scores that measure the ability to apply the superordination rule in the pre- and post-tests of the experimental and control groups respectively.

A *within group t-test for paired samples* was performed to compare the difference between the mean scores on the pre- and post-tests of each of the two groups. The results in Table 5.5 reveal the following:

TABLE 5.5
PRE- AND POST-TEST DIFFERENCES IN APPLICATION OF THE
SUPERORDINATION RULE

Group	Mean	SD	t	df	Sig
Experimental group	-50.0000	52.7046	-3.000	9	* .015
Control group	-10.0000	31.6228	-1.000	9	.343

The results indicate that there is a significant difference between the pre-and post-test scores only for the experimental group with respect to the application of the superordination rule in summarising. The null hypothesis of H4 is thus rejected for the experimental group only.

5.7.9 Discussion

The results of studies undertaken by Brown & Day (1983) and Hare & Borchardt (1984) indicate that students who were taught the superordination rule (i.e. collapsing lists in sentences) became adept at employing this rule. The results of the present study also signify that students can be taught to apply the superordination rule successfully.

5.7.10 Hypothesis 5

H5: There will be a significant difference in the mean scores that measure the ability to provide a controlling idea in the pre- and post-tests of the experimental and control groups respectively.

5.7.11 Results

The null version of Hypothesis 5 is formulated as follows:

Ho5: There will be no significant difference in the mean scores that measure the ability to provide a controlling idea in the pre- and post-tests of the experimental and control groups respectively.

A *within group t-test for paired samples* was performed to compare the difference between the mean scores on the pre- and post-tests of each of the two groups. The results in Table 5.6 indicate the following:

TABLE 5.6
PRE- AND POST-TEST DIFFERENCES IN IDENTIFYING THE
CONTROLLING IDEA

Group	Mean	SD	t	df	Sig
Experimental group	-75.0000	42.4918	-5.582	9	** .000
Control group	-25.0000	71.6860	-1.103	9	.299

When the two mean scores from the pre- and post-tests of the two groups are compared, the results are again statistically highly significant only for the experimental group. The null hypothesis for H5 is thus rejected for the experimental group only.

5.7.12 Discussion

The controlling idea is the central or general idea. It is similar to the main idea but takes more than one paragraph to explain (McWhorter 1995:140). Two studies (Brown & Day 1983; Hare & Borchardt 1984) suggest that students generally find it difficult to identify implicit main ideas. Providing a controlling idea is similar to identifying an implicit main idea in a paragraph. The significant results of the present study show that students can be successfully taught to find a suitable title for two paragraphs (i.e. the controlling idea) where it is not explicitly stated.

5.7.13 Hypothesis 6

H6: There will be a significant difference between the mean scores that measure summarisation ability in the pre- and post-tests of the experimental and control groups respectively.

5.7.14 Results

The null version of Hypothesis 6 is formulated as follows:

Ho6: There will be no significant difference between the mean scores that measure summarisation ability in the pre- and post-tests of the experimental and control groups respectively.

A *within group t-test for paired samples* was performed to compare the difference between the mean scores of the pre- and post-tests in each of the two groups' mean scores pertaining to overall summarisation abilities (incorporating H2, H3, H4 and H5). This explores whether there will be a difference in the mean scores between the two groups after the experimental group has been exposed to metacognitive and cognitive strategy training with

respect to certain aspects of summarisation. The results in Table 5.7 reveal the following:

TABLE 5.7
PRE- AND POST-TEST DIFFERENCES IN SUMMARISATION ABILITY

Group	Mean	SD	t	df	Sig
Experimental group	-46.0000	23.1900	-6.273	9	** .000
Control group	-8.0000	23.4758	-1.078	9	.309

The results shown above are statistically highly significant for the experimental group. The improvement was thus only significant for this group and not for the control group. The null hypothesis for H6 is rejected with regard to the experimental group only.

5.7.15 Discussion

Researchers (Brown & Day 1983; Garner 1987; Kirkland & Saunders 1991) advocate empowering students with metacognitive and cognitive strategies for summarisation as they result in improvement in study areas such as reading comprehension and summarisation. The findings from the present research suggest that students can be successfully taught to employ a combination of metacognitive and cognitive strategies for summarisation and to apply this knowledge to different reading passages.

5.8 HYPOTHESES RELATING TO NOTE-TAKING

There are two note-taking hypotheses. One hypothesis pertains to main idea identification whereas the other hypothesis relates to supplying a suitable controlling idea.

5.8.1 Hypothesis 7

H7: There will be a significant difference in the mean scores that measure the ability to listen for the sentence containing the main idea in a dictation passage in the pre- and post-tests of the experimental and control groups respectively.

5.8.2 Results

The null version of Hypothesis 7 is formulated as follows:

Ho7: There will be no significant difference in the mean scores that measure the ability to listen for the sentence containing the main idea in a dictation passage in the pre- and post-tests of the experimental and control groups respectively.

A *within group t-test for paired samples* was performed to compare the difference between the mean scores on the pre- and post-tests of each of the two groups. The results in Table 5.8 reveal the following:

TABLE 5.8
PRE- AND POST-TEST DIFFERENCES IN LISTENING FOR THE MAIN IDEA

Group	Mean	SD	t	df	Sig
Experimental group	-45.0000	28.3823	-5.014	9	** .001
Control group	-17.5000	16.8737	-3.280	9	* .010

The results reveal that there is a highly significant difference in the pre- and post-test scores of the experimental group and a significant difference for the control group. The null hypothesis for H7 is thus rejected for both groups at the $p \leq .05$ level.

5.8.3 Discussion

The study performed by Henner Stanchina (1982 in Oxford & Crookall 1989) indicates that the listening comprehension (i.e. listening for the main idea) of L2 students improved after they had been taught a listening strategy. O'Malley (1987:141) found that a group who was taught metacognitive and cognitive strategies for listening for the main idea strategies "outperformed the control group on two out of four daily tests". Although the results of the present study reveal that the scores of both groups are significant, a closer examination reveals that the experimental group (E2: 65.000 - E1: 20.000) made a greater improvement

than the control group (C2: 25.000 - C1: 7.500) (cf. Appendix R). These results suggest that the intervention programme whereby the experimental group was taught a combination of metacognitive and cognitive strategies for listening, was partially beneficial.

5.8.4 Hypothesis 8

H8: There will be a significant difference in the mean scores that measure the ability to identify a controlling idea in the pre- and post-tests of the experimental and control groups respectively.

The null version of Hypothesis 8 can be formulated as follows:

Ho8: There will be no significant difference in the mean scores that measure the ability to identify a controlling idea in the pre- and post-tests of the experimental and control groups respectively.

5.8.5 Results

A *within group t-test for paired samples* was performed to compare the difference between the mean scores on the pre- and post-tests of each of the two groups. The results in Table 5.9 indicate the following:

TABLE 5.9
PRE- AND POST-TEST DIFFERENCES IN LISTENING FOR THE
CONTROLLING IDEA

Group	Mean	SD	t	df	Sig
Experimental group	-60.0000	69.9206	-2.714	9	* .024
Control group	-15.0000	66.8747	-.709	9	.496

The difference between the pre- and post-tests of both groups reveal that the results of only

the experimental group are statistically significant. The null hypothesis for H8 is rejected with regard to the experimental group only.

5.8.6 Discussion

McWhorter (1995:140) asserts that the controlling idea is a broad or general idea which is like a main idea but more general and more comprehensive. In the present study, students were required to listen to two passages and then to find the controlling idea and provide a suitable title for the passages. In a sense, the controlling idea is similar to an implicit main idea as it is not explicitly stated in the listening comprehension passages. The findings of the present study suggest that students can successfully be trained to listen for the broad or general idea, that is, the controlling idea.

5.8.7 Hypothesis 9

Hypothesis 9 includes hypotheses 7 and 8, which comprise the hypotheses on note-taking by means of dictation, the function of which is to test the effects of teaching the experimental group metacognitive and cognitive strategies.

H9: There will be a significant difference in the mean scores for note-taking ability by means of dictation in the pre- and post-tests of the experimental and control groups respectively.

5.8.8 Results

The null version of Hypothesis 9 can be formulated as follows:

Ho9: There will be no significant difference in the mean scores for note-taking ability by means of dictation in the pre- and post-tests of the experimental and control groups respectively.

A *within group t-test for paired samples* was performed to compare the difference between the pre- and post-test scores of each of the two groups' mean scores (incorporating H7 and

H8). The results in Table 5.10 show the following:

TABLE 5.10
PRE- AND POST-TEST DIFFERENCES IN NOTE-TAKING

Group	Mean	SD	t	df	Sig
Experimental group	-50.0000	32.3932	-4.881	9	** .001
Control group	-16.6670	26.0588	-2.023	9	.074

The means of the pre- and post-test scores of the experimental and control groups show that only the difference in the mean scores of the experimental group is highly significant. The null hypothesis for H9 is thus rejected for the experimental group only. There is thus a highly significant difference between the pre- and post-test scores of an experimental group who have been taught a combination of metacognitive and cognitive strategies pertaining to listening for the main idea via note-taking and listening for the controlling idea. The control group who had not been taught such strategies showed no significant differences in their pre- and post-test scores.

5.8.9 Discussion

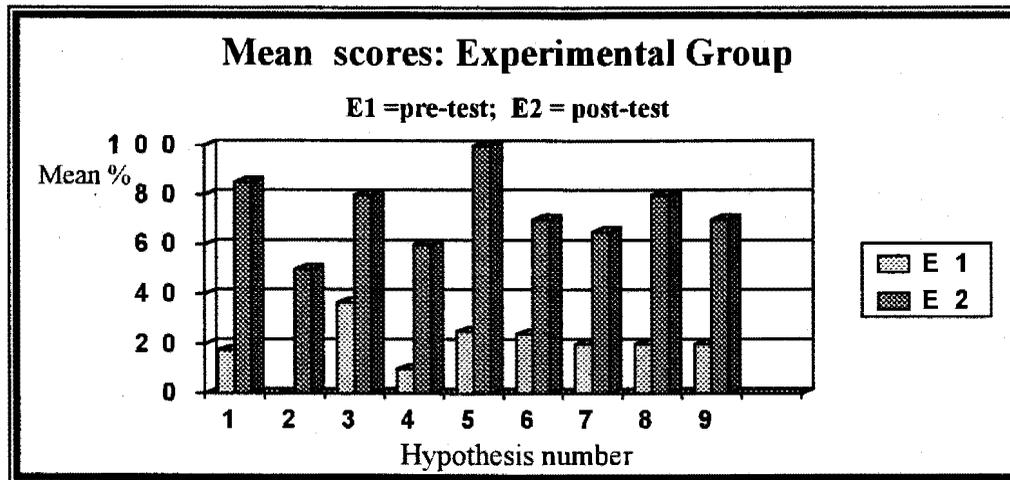
In a study undertaken by O'Malley *et al.* (1985) the findings indicate that students who had been taught a combination of metacognitive and cognitive strategies for listening comprehension tasks did better than students in a control group who had not received instruction. The results of the present study reveal that the combined metacognitive and cognitive intervention programme was successful with respect to listening comprehension.

5.8.10 Summary of hypotheses

Figures 5.1 and 5.2 provide appropriate summaries of the findings in sections 5.6 to 5.8.

FIGURE 5.1

THE PRE- AND POST-TEST MEAN SCORES OF THE EXPERIMENTAL GROUP



From the above graph it can be seen that all the post-test results of the experimental group were higher than those achieved in the pre-test. There were highly significant differences for H1, H3, H5, H6, H7 and H9. In addition, there were significant differences for H2, H4 and H8.

FIGURE 5.2

THE PRE- AND POST-TEST MEAN SCORES OF THE CONTROL GROUP

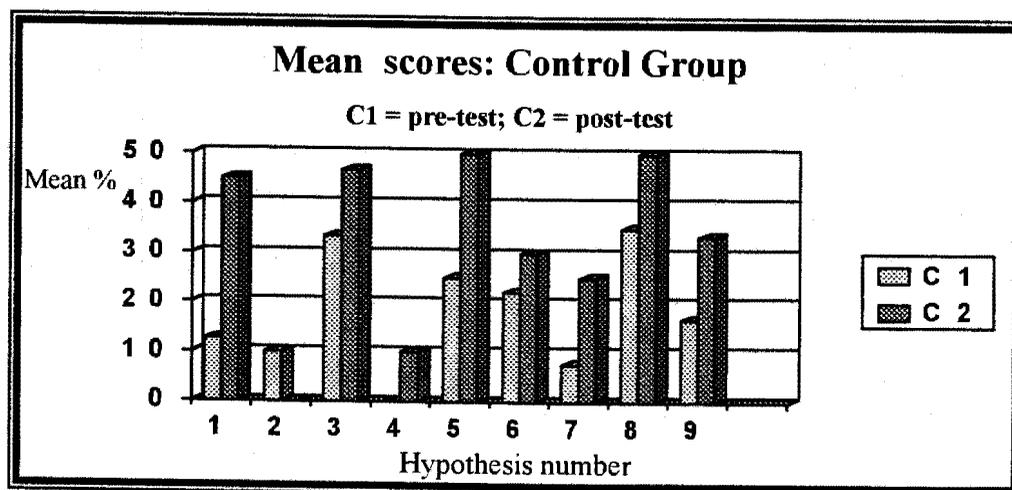


Figure 5.2 shows that, as in the case of the experimental group, the post-test results of the

control group were higher than those of their pre-test, except in the case of hypothesis 4. There were significant differences for H1 and H7 (cf. Tables 5.1 and 5.7).

5.9 HYPOTHESIS RELATING TO LISTENING FOR THE SUPPORTING IDEAS WHILST NOTE-TAKING

This hypothesis relates to the *post-test* only, as the students were not evaluated at the pre-test level. This hypothesis was included for additional interest.

H10: There will be a significant difference in the mean scores that measure the ability to listen for the supporting idea in a dictation passage in the post-tests of the experimental and control groups.

The null version of Hypothesis 11 is formulated as follows:

Ho10: There will be no significant difference in the mean scores that measure the ability to listen for the supporting idea in a dictation passage in the post-tests of the experimental and control groups.

5.9.1 Results

The *between group t-test for independent data* was performed to compare the performance of the two groups' post-test mean scores with respect to listening for the supporting idea in a dictation passage. The results in Table 5.11 reveal the following:

TABLE 5.11
DIFFERENCE OF MEANS OF THE TWO GROUPS
IN SUPPORTING IDEA IDENTIFICATION
T-TEST FOR INDEPENDENT DATA

Variables	Mean difference	Std error difference	t	df	Sig (2-tailed)
Post-test scores for H10	-.400	.216	-1.85	18	.081

The results show the following mean marks for the two groups: experimental group (1.7 SD .483) compared to the control group (1.3 SD .483). The null hypothesis cannot be rejected for H10. There is thus no significant difference at the 5% level between the mean score that measures the ability to listen for the supporting idea in a dictation passage. There is, however, a marginally significant difference in favour of the experimental group (cf. 5.4.2).

5.9.2 Discussion

Henner-Stanchina (in 1982 in Oxford & Crookall 1989; Oxford 1993) found that students' listening comprehension improved after they had been taught to listen for the supporting idea. In the present study, the experimental group were taught a combination of metacognitive and cognitive strategies pertaining to listening for the supporting idea. The results suggest that the intervention programme was marginally beneficial as far as listening for the supporting idea is concerned. However, it is difficult to say with certainty whether the observed results (i.e. listening for the supporting idea) in the present study would have occurred without the intervention programme.

5.10 GENERAL HYPOTHESIS: METACOGNITIVE AND COGNITIVE STRATEGIES

Hypothesis 11 is the overall hypothesis and incorporates Hypotheses 1, 6 and 9 which together constitute the metacognitive and cognitive hypotheses, whose function is to test the effects of teaching L2 students a combination of metacognitive and cognitive strategies applicable to reading and listening for the main idea and summarisation. The assumption underlying the final hypothesis, Hypothesis 11, is that explicit strategy training (i.e. metacognitive and cognitive) will lead to improved overall results in reading and listening comprehension.

Hypothesis 11

H11: There will be a significant difference in the mean scores that measure the ability to apply metacognitive and cognitive strategies to reading and listening for the main idea, summarising and note-taking by means of dictation in the pre- and post-tests of the experimental and control groups.

5.10.1 Results

The null version of Hypothesis 11 is formulated as follows:

Ho11: There will be no significant difference in the mean scores that measure the ability to apply metacognitive and cognitive strategies to reading and listening for the main idea, summarising and note-taking by means of dictation in the pre- and post-tests of the experimental and control groups.

In order to test this hypothesis, a *between group t-test for independent data* was performed to compare the performance of the two groups from the pre- and post-tests on the mean scores of tests related to reading for the main idea, summarising and listening for the main idea (i.e. H1 - H9). The results in Table 5.12 indicate the following:

TABLE 5.12
A COMPARISON OF THE OVERALL PERFORMANCE OF THE
EXPERIMENTAL AND THE CONTROL GROUP
T-TEST FOR INDEPENDENT DATA

Variables	Mean difference	Std error difference	t	df	Sig (2-tailed)
Post-test - pre-test scores for H1-H9	-4.400	.955	-4.61	18	*** .000

The average (mean) improvement in scores for the control group was 2.4 (SD 2.591) and 6.8 (SD 1.549) for the experimental group. Since the t-value was -4.61 (which is a large value) and the p-value was highly significant (** .000), it implies that there was a significant difference in the improvement between the two groups. The null hypothesis for H11 is thus rejected.

5.10.2 Discussion

Several researchers (Baker & Brown 1984; Spires 1990; Adams-Hodge 1991) stress the

importance of metacognitive strategy training with regard to reading comprehension and learning. Baker & Brown (1984:375) maintain that students who experience problems whilst reading require instruction in the rules and strategies for reading for the main idea and summarising. These authors (1984:373) found that students who were taught topic sentence rules became adept at applying them to reading passages. Garner (1987) asserts that poor readers must have knowledge of the procedures (i.e. cognitive strategy training) and metacognitive strategies for identifying main ideas. O'Malley *et al.* (1985) found that students who were taught a combination of metacognitive and cognitive strategies with respect to listening tasks performed better than students who did not receive instruction or received instruction in only one type of strategy. With reference to the present study, Table 5.12 shows that there is a significant difference in the improvement between the two groups and that the alternative hypothesis for H10 is accepted. The findings reveal that there is a significant difference in the mean scores that measure the ability to apply metacognitive and cognitive strategies to reading and listening for the main idea, summarising and note-taking by means of dictation in the pre- and post-tests of the experimental and control groups. The results indicate that the combined metacognitive and cognitive intervention programme can be considered beneficial in the areas of reading and listening comprehension and summarisation.

The mean provides information on the average performance of a group on a given task, and informs the reader how the groups as a whole performed (Seliger & Shohamy 1989:216). The two independent groups' (experimental and control) gain scores, obtained from the difference between the pre- and post-test mean scores, are shown in Appendix R. The mean difference between the pre-test scores (E1 - C1) and post-test (E2 - C2) scores of the experimental group and the control group for hypotheses H1 to H9 are depicted in Table 5.13.

TABLE 5.13
DIFFERENCE OF MEANS OF EXPERIMENTAL AND CONTROL GROUPS
INDEPENDENT SAMPLES TEST ("BETWEEN" GROUPS)

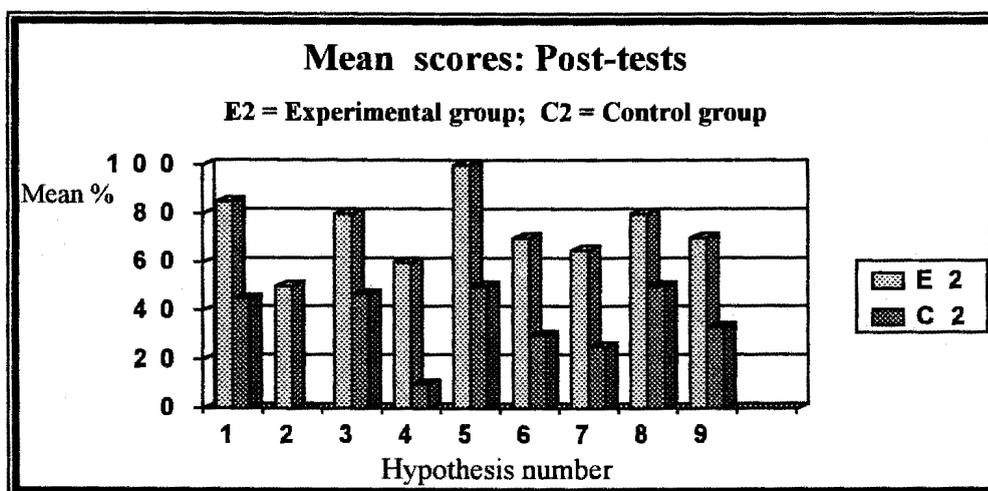
Hypothesis	Mean difference	Std error difference	t	df		Sig (2-tailed)
Hypothesis 1 - Pre	5.00	6.77	.739	18		.470
Hypothesis 1 - Post	40.0	10.5	3.795	15	**	.002
Hypothesis 2 - Pre	-10.0	10.0	-1.000	9		.343
Hypothesis 2 - Post	50.0	16.7	3.000	18	*	.008
Hypothesis 3 - Pre	3.33	9.23	.361	12		.725
Hypothesis 3 - Post	33.3	9.16	3.638	18	**	.002
Hypothesis 4 - Pre	10.0	10.0	1.000	9		.343
Hypothesis 4 - Post	50.0	19.1	2.611	15	*	.020
Hypothesis 5 - Pre	.0000	19.0	.000	18		1.000
Hypothesis 5 - Post	50.0	16.7	3.000	9	*	.015
Hypothesis 6 - Pre	2.00	6.15	.325	13		.750
Hypothesis 6 - Post	40.0	9.66	4.140	16	**	.001
Hypothesis 7 - Pre	12.5	7.31	1.709	18		.105
Hypothesis 7 - Post	40.0	10.0	4.000	18	**	.001
Hypothesis 8 - Pre	-15.0	20.1	-0.747	18		.464
Hypothesis 8 - Post	30.0	21.3	1.406	17		.178
Hypothesis 9 - Pre	3.33	9.88	.338	18		.740
Hypothesis 9 - Post	36.7	10.5	3.498	18	**	.003

** = Highly significant at 1% level

* = Significant at 5% level

From Table 5.13 it can be seen that the two groups differ significantly on all the post-tests except for H8 ($p = 0.178$) implying that the training had an overall effect and produced improvement. Figure 5.3 summarises the differences between the post-test mean scores of both groups (cf. Appendix Q for pre-test mean differences between the two groups).

FIGURE 5.3
A COMPARISON OF THE POST-TEST MEAN SCORES OF THE
EXPERIMENTAL AND CONTROL GROUPS



The post-test results revealed that the control group also made some improvements, although not to the same extent as the experimental group. This might be attributed to several factors.

Firstly, whilst the experimental group attended the intervention programme, the control group had 'free' periods which they utilized by learning and preparing for their final year Sociopedagogics examinations. Their study methods might have included reading their textbooks, note-taking and summarisation of texts. The fact that they had these regular study periods might have enhanced their performance. In addition, the fact that the control group spent the intervention time studying for the upcoming exams might counter possible reactive effects from not being involved in the intervention programme (cf. § 4.10 and 5.2.1). Even though the 'time spent on the task' variable was not formally controlled in the present study, the pragmatics of the situation were such that the control group spent the 13 'free' lessons engaged in non-target tasks (i.e reading and studying) that were related to the tasks in which the experimental group were engaged, and as such both groups of students were exposed to similar texts. In other words, the time spent studying the same Sociopedagogics texts as those used in the intervention programme possibly made the control subjects familiar with the contents of the texts, and this may partially explain why their performance on some of the post-test measures also improved.

Secondly, both groups were familiar with the topics of the textbook by the end of the

intervention period. During the reading and listening comprehension post-test situation, they could retrieve this prior knowledge and use it whilst processing the text or discourse in order to make sense of the situation (cf. § 2.1.4.3). This may have contributed to their performance during the post-test situation.

Thirdly, the students in the control group could have spoken to students in the experimental group and asked them questions about the 'new' method the experimental group were using. This view is substantiated by Chamot & Kupper (1989:19) who state that "as students discuss their learning strategies with their peers, they discover new strategies and new applications of familiar strategies".

Fourthly, it should be stressed that both effective and less effective learners use learning strategies. However, there are differences in their use of strategies. Research has shown that less skilled L2 learners use appropriate strategies less frequently, use fewer strategies than more successful learners and are often unaware of using these strategies (Chamot & Kupper 1989:13; Oxford 1992:179). It should however be borne in mind that it is likely that L2 learners who are less successful are not all alike in their use of learning strategies (Oxford 1992:179). The students in the control group might have had a smaller repertoire of strategies but used them effectively for the different pre- and post-test tasks.

Fifthly, research on learning strategy use has shown that L2 students at all levels of proficiency successfully use cognitive strategies (53%) for learning tasks more frequently than other strategies (O'Malley *et al.* 1985:566). In the present study, the control group might have been taught cognitive strategies such as the rules of summarisation in the past and brought this knowledge to the testing situation. Alternatively, they might have used metacognitive and cognitive strategies without being aware of using them. Research findings reveal that students who employ a combination of strategies (e.g. metacognitive and cognitive) perform better than a control group who did not receive training (O'Malley *et al.* 1985; Chamot 1987; Oxford & Crookall 1989). Such findings might explain why students in the experimental group of the present study did better than the control group.

5.11 OVERVIEW OF THE FINDINGS

In Chapter 1 (cf. § 1.1.2) it was pointed out that various factors (i.e. cognitive/conceptual, linguistic, learning, literacy, socio-cultural and language policy) appear to contribute to the general problems of black SA L2 students at tertiary level. It was stated that black SA L2 students appear to require instruction in three important and related skills underlying the ability to read and listen to learn, namely identification of main ideas, summarisation and note-taking. They also need to develop their metacognitive self-knowledge with respect to reading and listening to learn. After an examination of ways in which the problems of L2 students could be addressed at tertiary level, it appeared that 'at risk' black L2 tertiary students might benefit academically from being taught a combination of metacognitive and cognitive strategies. Surprisingly, there is very little research available in this area pertaining to black SA L2 tertiary students. The intention of the research undertaken was to make a contribution in this area of research by addressing the questions posed in Chapter 1 (cf. § 1.3). There is a certain amount of overlap among the problems and hypotheses formulated for this study but in the discussion that follows an attempt will be made to tease out the differences that do exist among them.

5.11.1 The effect of teaching L2 students a combination of metacognitive and cognitive strategies

The importance of metacognition in academic learning, especially with regard to reading and listening comprehension, is stressed in Chapter 3. Research has shown that metacognitive strategy training has been successful in areas such as reading comprehension, for instance, reading for the main idea and summarisation (Baker & Brown 1984; Garner 1985; Adams-Hodge 1991; Kirkland & Saunders 1991; Thompson & Taymans 1994). The effectiveness of metacognitive strategy training with regard to listening comprehension, for example, listening for the main idea, is stressed by researchers such as O'Malley *et al.* (1985) and O'Malley (1987). The research conducted by Chamot (1987) revealed that 53% of successful ESL students used cognitive strategies such as note-taking and repetition. Other examples of cognitive strategies are summarisation and mastery of the procedures or rules for main idea identification (Garner 1987; Rubin 1987). Researchers (O'Malley *et al.* 1985; Chamot 1987;

Oxford 1992) have found that successful ESL learners use a combination of metacognitive and cognitive strategies. The focus of this study is concerned with the effect of teaching L2 tertiary students a combination of metacognitive and cognitive strategies. In other words, the study deals with the overall effect of implementing the intervention programme.

With regard to reading for the main idea and summarising, the L2 students were taught the following metacognitive strategies:

- *How to centre their learning* (i.e. focusing attention).
- *How to arrange and plan their learning* by identifying the purpose of the learning task, namely to identify the main idea in a passage and/or summarise a passage. Planning ahead behaviour and self-awareness/regulation training included: "Let me think ..", applying the rules or steps for reading for the main idea or summarising, practising finding the main idea and/or writing a summary.
- *How to evaluate or monitor their learning*. By means of self-testing and monitoring the students find out whether they are comprehending the reading text. When they experience problems with comprehension they have to employ fix-up strategies such as self-correction. Moreover, they have to check their success against the answer supplied by the lecturer.

The cognitive strategies for reading for the main idea included applying the procedures to identify where the topic sentence is likely to be found (i.e. the rules) and applying the seven steps for self-instruction training (cf. Table 4.1 in Chapter 4). They were also taught cognitive strategies for summarising, namely, the rules applicable to summarisation and the steps for self-instruction training (cf. Table 4.3 in Chapter 4).

With respect to listening comprehension for note-taking, the students were taught the following metacognitive strategies:

- *How to centre their learning*. Students pay attention and listen for cues from the lecturer.

- *How to arrange and plan their learning.* The lecturer gets the students to become aware of the purpose of the listening task by requesting them to repeat her instructions, i.e. to pay attention. She also tells them to listen for the main, controlling and supporting ideas. Planning ahead behaviour for the listening and note-taking task entails that they have to repeat the self-instructions steps to themselves, write down a dictated passage and listen for the main, controlling and supporting ideas.
- *How to evaluate their learning.* By means of self-monitoring and self-testing the students have to ascertain whether they understand the listening passage. When they experience problems with listening comprehension, they have to use fix-up strategies such as self-correction. In addition, they have to check whether their answers are correct by checking them against the answer provided by the lecturer.

Note-taking was the cognitive strategy used for listening for the main, controlling and supporting ideas.

The function of the final hypothesis, Hypothesis 11, which incorporates Hypotheses 1, 6 and 9, was to test the effects of teaching L2 students metacognitive and cognitive strategies pertaining to reading for the main idea, summarisation and note-taking. The results of the *between-group t-test* for Hypothesis 11 indicate that the differences between the two groups are significant, that is, the experimental group has outperformed the control group. These findings provide support for teaching L2 students a combination of metacognitive and cognitive strategies to improve reading and listening for the main idea, summarising and note-taking (cf. Table 5.12).

5.11.2 The effect of teaching L2 students strategies relating to reading for the main idea

In order to comprehend a paragraph when reading to study, the student has to be aware of the main point of a passage (Baker & Brown 1984). Students are often unable to identify the appropriate topic sentence or main idea in a paragraph. Researchers advocate teaching students strategies to identify the main idea in order to improve their comprehension ability

(Baker & Brown 1984; Tarlow 1990), for instance, heightening students' metacognitive awareness by means of teaching them self-regulation, self-questioning, monitoring and self-evaluation strategies for reading comprehension tasks. In addition, students could be taught cognitive strategies (i.e. rules) to locate the topic sentence.

The function of Hypothesis 1 was to test the effect of teaching the L2 students metacognitive and cognitive strategies relating to the rules of where the topic sentence or main idea is likely to be found. Although both groups obtained significant post-test results, it was established that the experimental group made a greater improvement than the control group. This difference might possibly be attributed to the fact that the experimental group was taught cognitive strategies to identify the sentence containing the main idea. In contrast, the control group was unable to recognise the topic sentence but only gave a general main idea as their answer in the post-test situation. The results might also be attributed to the fact that the experimental group displayed reflective behaviour and became actively involved and adept in regulating and monitoring their own learning. The results of the present study lend support to findings that metacognitive strategy training improves reading comprehension (Spires 1990; Adams-Hodge 1991; Thompson & Taymans 1994). It would appear that the combined effect of metacognitive and cognitive strategy instruction was responsible for the significant improvement in the experimental group.

5.11.3 The effect of teaching L2 students a summarising technique

The ability to summarise a reading passage is an important study skill (Brown & Day 1983; Kirkland & Saunders 1991). Summarisation entails recognition of the main idea and condensation of the text whilst retaining the gist (Johns 1985). Many students experience difficulty with summarising a text (Brown & Day 1983; Hare & Borchardt 1984; Johns 1985). Brown *et al.* (1981:18) found that inefficient application of summarisation rules and strategies impedes effective studying. Brown & Day (1983) are of the opinion that students should be taught to enhance their knowledge by making them aware of available cognitive strategies such as the rules for summarisation (cf. § 1.1.3.2 in Chapter 1). Kirkland & Saunders (1991) stress the importance of empowering L2 students to perform the metacognitive skills required for summarisation.

The function of Hypothesis 6, which incorporates Hypotheses 2, 3, 4 and 5 was to test the effect of teaching students a combined metacognitive and cognitive summarising technique. When the results of the three summarisation hypotheses are considered together, they suggest that L2 students can successfully be taught by means of combined metacognitive and cognitive strategies to: write a summarised passage in the suggested number of words (Hypothesis 2); delete examples, repetitive words or descriptive words (Hypothesis 3) and use a superordinate term when applicable in a paragraph (Hypothesis 4).

The controlling idea is the general or main idea or thought that the writer explains and discusses in more than one paragraph (McWhorter 1995:140). The controlling idea usually takes the form of a heading or title in a reading text. Stotesbury (1991:37) asserts that the heading of a text can be a useful guide to L2 students in tracing the message the writer wishes to convey to the reader. The heading frequently provides readers with a summary of the text. The importance of the interpretation of headings should not be overlooked in reading comprehension or summarisation. The results of H5 indicate that students can be successfully taught how to supply an appropriate heading for a summarising passage.

The function of Hypothesis 5 was to test the effect of teaching L2 students to choose an appropriate title or heading for two summarisation passages. The results of Hypothesis 8 also suggest that L2 students were successfully taught how to select a suitable title for two passages (cf. 5.11.4). This implies that students could find a central or general idea in the two passages which is tantamount to a main idea. Furthermore, they could apply the brevity rule to find a suitable heading and write it within the suggested number of words.

5.11.4 The effect of teaching L2 students note-taking skills by means of dictation

Students often find it difficult to make adequate notes or fail to understand the main idea during a lecture (Blacquièrè 1989; Olsen & Huckin 1990). Aaronson (1975) claims that students require practice in developing the art of listening and understanding ideas. Listening for the main idea is a global kind of listening which focuses on broader concepts, rather than on detail or supporting ideas (Lund 1990; Oxford 1993). Listening for the controlling ideas is similar to listening for the main idea (McWhorter 1995). In the present study, the students had to listen to more than one listening comprehension passage and then had to find the

central or general idea pertaining to them.

The function Hypothesis 9, which incorporates Hypotheses 7 and 8, is to test the effects of teaching the experimental group metacognitive and cognitive strategies related to note-taking by means of dictation.

In the present study the L2 students were taught the following metacognitive strategies for listening for the main and controlling ideas: focus attention by means of cues; arrange and plan their learning by being aware of the purpose of the listening task such as to listen for the main and controlling ideas; and evaluate and monitor learning. The students were also taught cognitive strategies such as the rules for identifying the topic sentence or main idea and note-taking. With respect to the controlling idea, they had to apply the same brevity rule which was also applicable to the controlling idea in the summarisation passage (i.e. writing the heading in no more than five words).

With regard to Hypothesis 7 both groups attained significant results. Despite significant results for both groups, a closer examination reveals that the experimental group (E2: 65.000 - E1: 20.000) made a greater improvement than the control group (C2: 25.000 - C1: 7.500) (cf. Appendix R). These findings imply that the intervention programme was successful with regard to teaching the experimental group a combination of metacognitive and cognitive strategies for listening for the main idea.

With respect to Hypothesis 9, the results reveal that there is a highly significant difference in the post-test scores of the experimental group. There is also a significant difference in the post-test scores of the control group. From these results, it seems that the experimental group made a greater improvement than the control group. In interpreting the results of the two note-taking hypotheses, it would appear as if L2 students can successfully be taught to listen for the sentence containing the main idea (Hypothesis 7) and to find a controlling idea (Hypothesis 8) by means of a combination of metacognitive and cognitive strategies.

5.11.5 The possibility of transferring knowledge learned in the reading situation to the listening situation

In Chapter 2 (cf. § 2.2.3) it was pointed out that several authors (Baker & Brown 1984; Jardine 1986; Stothard 1994; McWhorter 1995) maintain that reading and listening are similar processes. The only difference is the modality of input (Stothard 1994:220). The skills that are relevant to reading comprehension are also relevant to listening comprehension. For instance, reading and listening are comprehension processes in which students have to grasp the main, controlling and supporting ideas and evaluate their importance in terms of the theme being studied, as well as for examination purposes.

There is conflicting evidence about whether bridging or transfer from one task to another is possible. Kennedy *et al.* (1991) are of the opinion that instruction which emphasises metacognitive skills e.g. setting goals, planning and self-monitoring, promotes transfer to other areas. However, the research of Osborn (1939 in Kennedy *et al.* 1991) found that students who were taught critical thinking skills did not differ from a control group with respect to the ability to transfer knowledge learned from one context to another. In the present study, the null hypotheses were rejected for both hypotheses 1 and 7 for the experimental and control groups. However, the findings reveal highly significant results for H1 (reading for the main idea) in favour of the experimental group compared to significant results for the control group. With respect to H7 (listening for the main idea), the results show that the mean difference for the experimental group (45.00) is greater than that of the control group (17.50). These findings lend support to the fact that partial transfer probably did occur in the present study. This is because in the present study, the lecturer explicitly taught the experimental group the strategies and rules applicable to one modality (reading) and then they applied the knowledge taught to them in the reading section of the intervention programme to another modality, namely listening for the main idea.

It could perhaps also be argued that the results might signify that transfer from reading to listening took place for the following reasons: the experimental group was shown how reading and listening for the main idea resemble each other; their attention was directed towards the goal of the reading task (to identify the main idea) and the goal of the listening

task (to take down dictation and to find the main idea); and they had practised applying the rules and were thus familiar with the problem domain. The former three conditions enable transfer to new situations to take place (Perkins & Salomin 1989 in Greenberg 1990).

To sum up, the *within-group t-tests* showed that both groups in the present study had significant post-test results compared to their pre-tests. When the 2 groups were compared, however, the improvement of the experimental group was greater than that of the control group (cf. Table 5.2 for H1 and Table 5.8 for H7). Figure 5.3 also reveals that the experimental group's post-test mean scores are larger than that of the control group. These findings all lend support to the possible interpretation that transfer from one domain to another was partially successful. In other words, the reading skills and knowledge which the L2 students in the experimental group developed in reading for the main idea were transferred to another area, namely, listening for the main idea. However, caution should be exercised against a simplistic interpretation that the act of learning something new can automatically be transferred to another situation.

5.11.6 The effect of teaching L2 students how to identify the supporting idea in a listening comprehension passage

Note-taking during a lecture implies that L2 students have to be able to distinguish between important and unimportant information. For example, the purpose of the lecture might be for the student to listen for ideas to support the main idea. Williams (1984) suggests that students should be taught the skills of note-taking and listening for the supporting idea. In Chapter 2 it was shown how the listening comprehension of L2 students improved following their training in listening for the supporting idea.

The function of Hypothesis 10 was to establish whether instruction and practice in recognising the supporting idea in a dictation passage would enable students to apply this knowledge to other dictation passages. Emphasis was placed on encouraging students to focus their attention by means of cues and to arrange and plan their learning by making them aware of the purpose of the listening task, and teaching them to monitor their learning. Although the results obtained were only marginally significant in favour of the experimental group,

they provide partial support for the hypothesis that the intervention programme was successful as far as training students to identify the supporting idea was concerned. As there was no pre-test administered for Hypothesis 10, the researcher cannot be sure how the two groups performed in this regard prior to the intervention programme. The results, however, indicate that the mean scores of the experimental group were higher than those of the control group. It is also impossible to say with certainty that the observed results would not have occurred without the benefit of the intervention programme. At best, the researcher can only say that when the experimental group was compared to the control group, the former achieved better results.

To conclude, it can thus be said that there was a significant difference between the two groups, in favour of the experimental group, as revealed by their overall performance, which was tested by means of Hypothesis 11. This hypothesis lends support that the intervention programme was successful.

5.12 SUMMARY

In this chapter the results were presented and discussed. The research was undertaken to determine the effect of teaching a combination of metacognitive and cognitive strategies to a sample of ten black L2 tertiary students who had reading and listening comprehension problems. The statistical tests employed were standard deviations, means and t-tests. The main findings of this research can be set out as follows, according to the significance of the differences found between the experimental and control group:

- Experimental group: Highly significant differences ($p \leq .01$) for hypotheses H1, H3, H5, H6, H7 and H9. Significant differences ($p \leq .05$) for hypotheses H2, H4 and H8.
- Control group: Significant differences ($p \leq .05$) for two hypotheses, viz: H1 and H7.

On closer investigation, the highly significant mean scores for Hypotheses 1, 3, 5, 6, 7 and 9 indicate that the experimental group's performance was greater than that of the control

group. This is substantiated by the findings of the two groups' gain scores (post-test score - pre-test score) in Table 5.13. Finally, the highly significant results on the *between-group t-test* for Hypothesis 11 reveals that the experimental group outperformed the control group. The overall findings thus suggest that a combined metacognitive and cognitive intervention programme appears to be successful in improving the reading and listening comprehension of black L2 tertiary students. This encompassed reading for the main and controlling ideas, summarisation and listening for the main, controlling and supporting ideas.

CHAPTER 6

CONCLUSION

6.0 INTRODUCTION

The objectives of this chapter are to review the contribution of the research undertaken in this study in terms of the aims set out in Chapter 1, briefly to outline the implications of the findings of this study, and to point out some limitations of the study and areas for future research.

6.1 REVIEW

This section will discuss the general aim of the present study, the research problems that it addressed, the literature study, the intervention programme that was adopted and the findings derived from the research.

6.1.1 The aim of the study

The general aim of the study was to make a contribution to L2 theory and practice by examining the effects of metacognitive and cognitive instruction in L2 tertiary learning and teaching situations. It has long been known that L2 students have difficulty learning through the medium of a second language (cf. § 1.1). Cognitive/conceptual, linguistic, learning, literacy, socio-cultural and pedagogic factors as well as language policy appear to contribute to the problems that black L2 students in South Africa face. The need for the present study arose when a preliminary investigation showed that English L2 undergraduate students enrolled for a Sociopedagogics course had reading and listening comprehension and study problems. It was decided to concentrate on three important and related skills underlying the ability to read and listen to learn, namely identification of main ideas, summarisation and note-taking. The study also necessitated paying attention to aspects of L2 students' metacognitive knowledge, especially those pertaining to reading and listening to learn.

6.1.2 Research problems addressed in this study

The main question which was initially posed in Chapter 1 (cf. § 1.3) and culminated in the empirical research study was: Will 'at risk' L2 tertiary students in an experimental group benefit from being taught a combination of metacognitive and cognitive strategies applicable to reading and listening comprehension, compared to a control group that was not taught these skills? In order to test this, the following aims were set:

- To adopt a semi-experimental method, comprising an experimental and control group, an intervention programme and pre- and post-tests.
- To design an intervention programme in order to teach an experimental group comprising ten 'at-risk' black L2 tertiary students learning strategies, specifically a combination of metacognitive (i.e. metacognitive awareness, self-regulation and monitoring) and cognitive strategies (i.e. the procedures and rules) for reading and listening comprehension.
- To contribute to L2 theory and practice in South Africa by showing the importance of combined metacognitive and cognitive instruction in tertiary learning and teaching situations.

Eleven hypotheses were formulated for this study. Nine hypotheses refer to identification of main and controlling ideas in reading and listening, summarisation and note-taking. One hypothesis relates to identifying the supporting idea in the post-test only. The final hypothesis relates to the effectiveness of teaching L2 black students a combination of metacognitive and cognitive strategies. The 11 hypotheses were tested by means of statistical analysis.

The following overview of the chapters indicates how these research problems were addressed.

6.1.3 Overview of chapters

Chapter 1 of this exploratory study indicated that many South African black L2 tertiary students experience problems with reading and listening comprehension. It explained that the

present research focused on three L2 problem areas underlying L2 learners' difficulty to read and listen to learn, namely identifying main ideas, summarising and note-taking. In addition, it provided the rationale that because metacognitive skills play an important part in developing independent learners, the students in the present study also needed to develop metacognitive skills such as metacognitive knowledge and self-regulation.

The literature review spanned Chapters 2 and 3 and served to situate the research issues within a broader theoretical and empirical framework. In Chapter 2 the concepts *reading* and *listening* and their component skills were discussed. An overview was given of views of, and research into, L2 reading and listening comprehension. It was shown that reading is a fast, precise and highly automated process which involves interaction between the reader and the text as well as simultaneous interaction between component bottom-up and top-down skills (i.e. word recognition, vocabulary, formal and content schemata, synthesis and evaluation skills/strategies as well as metacognitive knowledge and skills monitoring). In addition, affective factors such as the reader's attitudes, ideas, beliefs, experience, values and motivation towards the reading task also contribute to the manner in which the reading task is approached.

A brief review of L2 listening comprehension research concluded the first section of Chapter 2. It was shown that listening comprehension is also an interactive, bottom-up/top-down process. The following variables are thought to influence listening comprehension: simplification of L2 input, attention, memory and monitoring of comprehension. Affective factors such as L2 students' attitudes, beliefs and emotions in connection with their listening ability also appear to influence their listening and note-taking ability. A comparison between L2 listening and reading comprehension indicated that the general processes underlying both skills are the same despite the fact that there are some differences (e.g. at the input level) between listening and reading tasks. This is because there are "cognitive mechanisms that are common to both reading and listening comprehension" (Pretorius 1996:44). Specific attention was given to the two main areas of comprehension involved in tertiary learning, namely reading for meaning and listening for note-taking, with specific reference to reading for the main and controlling ideas, summarisation and listening for the main, controlling and supporting ideas.

In the second section of Chapter 2, the concept *learning* and the interaction between learning and teaching were discussed. Research has shown that there is a need for L2 students to become aware of their own thinking and to acquire adequate learning strategies for studying in order to teach them to think for themselves. At the same time, the need for South African teachers to be taught these skills was stressed. This means that teachers have to be taught how to teach the skills which learners need to learn.

The present study was intended to make a contribution to the understanding of the reading and listening problems of L2 tertiary students by focusing on the following aspects:

- instruction in identifying the topic sentence with the main idea (cf. H1);
- instruction in the use of a summarising technique (cf. hypothesis H6 which incorporates H2-H5) and;
- instruction in the following aspects of note-taking: identifying the main, controlling and supporting ideas (cf. hypothesis H9 which incorporates H7 and H8 as well as hypothesis H10).

Chapter 3 dealt with metacognition and its role in L2 tertiary study. The concept *metacognition* was described. A discussion of Flavell's (1976) different views on metacognition served to show how the concept has changed over the years. Initially, metacognition referred to the reader or listener's knowledge or awareness about his cognitions and the ability to regulate, monitor or control these cognitions. The concept *metacognitive knowledge* was later broadened to include person, task and strategy variables which were thought to interact with one another. Flavell's early views on metacognition have changed to include psychological and cognitive domains. More specifically, he now differentiates between metacognitive knowledge and experience as well as metacognitive and cognitive strategies. Present day views on metacognition stress aspects such as motivation and shared knowledge. Motivational aspects of metacognition which are thought to affect self-regulated learning include metacognitive beliefs, judgements and choices. All of these aspects play an important role in learning situations.

Although there are problems associated with definitions of the concept *metacognition* (cf. §

3.1.6 in Chapter 3), the present study emphasises the importance of metacognition in L2 thinking, reading and listening comprehension as well as learning. It is a critical factor in "learning to learn". It encourages students to become consciously aware of their own learning, and empowers them to manage their own learning and to become active participants in their own performance. Four instructional approaches (direct explanation, scaffolded instruction, cognitive coaching and cooperative learning) which integrate the components of metacognition were identified and their strengths and weaknesses were discussed.

There is close interaction between metacognition, cognition and reading. The literature review in Chapter 3 indicated that less skilled L2 readers often have metacognitive problems such as lack of metacognitive knowledge or awareness (declarative, conditional and procedural knowledge). They frequently tend to have insufficient self-knowledge, task and text knowledge and need to acquire knowledge of rules for comprehension such as rules for summarisation and reading for the main idea.

Research has shown that there is a need for less skilled L2 students to be provided with metacognitive and cognitive skills for reading and listening comprehension. More specifically, with respect to metacognitive problems applicable to reading, summarising and listening comprehension, it has been suggested that L2 students would benefit from self-regulation and monitoring training and task-specific strategy training. The literature review revealed that when learning has been successful and the student has understood the rules and procedures in one domain, such as reading, then bridging or transfer to other areas, such as listening, is possible. The present study aimed to ascertain whether combined metacognitive and cognitive strategy training could improve students' performance in the following areas: main and controlling idea identification by means of reading and listening, summarisation, note-taking as well as listening for the supporting ideas.

Chapter 4 described the nature of the combined metacognitive and cognitive intervention programme employed to improve the comprehension of L2 tertiary students. The assumption was that students would benefit from being taught metacognitive strategies applicable to studying, namely, metacognitive self-awareness/regulation, metacognitive monitoring and using compensatory fix-up strategies such as evaluating and regulating their learning.

The intervention programme consisted of four phases: Phase One emphasized reading for the main idea. The aim of these lessons was to try and raise the students' awareness that text characteristics, study strategies and their own declarative metacognitive knowledge influence the way in which they read or study. The difference between controlling, main and supporting ideas was also explained to the students. By means of discussion, direct explanation, modelling and practice the students were taught cognitive strategies relating to locating the topic sentence containing the main idea. It was hoped that, by encouraging the students to use a think aloud and self-questioning technique during reading for the main idea and summarisation, they could be assisted to acquire a reflective problem-solving style. It was also hoped that by applying the steps for self-instructional training (cf. Tables 4.1 and 4.3 in Chapter 4), the L2 students would become actively involved in their own learning and take responsibility for it instead of exhibiting inert, passive and impulsive problem-solving styles which encourage reliance on rote learning.

During Phase Two, which consisted of transferring skills from reading to listening, the students had to apply the rules learnt in reading for the main idea to listening for the main idea. They also had to pay attention to listening for note-taking steps, which meant listening for the main, controlling and supporting idea (cf. Table 4.2). In Phase Three, emphasis was placed on summarisation. The students had to apply the cognitive strategies related to the steps and the rules for locating the main idea to summarisation. In addition, they had to master the other rules applicable to summarisation (cf. Table 4.3). Phase Four comprised the remaining revision lessons in which the above skills were practised.

Based on informal assessment by the researcher and the lecturer, the intervention programme seemed to have a beneficial effect on the students from an affective point of view. This was deduced from the fact that the students were motivated, actively participated in their own learning, spontaneously provided feedback and were prepared to exchange and share ideas within the group. They displayed positive attitudes, beliefs and judgements about their reading and listening comprehension. They were prepared to use and practise the metacognitive and cognitive strategies proposed by the lecturer and were eager to take turns to model the steps of the reading and summarising plan.

In Chapter 5 the results of the pre- and post-tests were discussed. The findings are summarised below:

- In response to the question of whether the L2 tertiary subjects would be able to identify the sentence containing the main idea after instruction in the use of a combined metacognitive and cognitive technique, the findings show that there was a highly significant difference between the pre- and post-test scores of the experimental group and a significant difference for the control group. However, the mean difference for the experimental group was higher than that of the control group (67.50 versus 32.50).
- In reply to the question of whether the L2 tertiary subjects would be able to write the summarisation passage in the suggested number of words, the findings reveal a significant difference for the experimental group only.
- In response to the question of whether the L2 tertiary subjects would be able to apply the deletion rule, the findings indicate a highly significant difference for the experimental group only.
- In reply to the question of whether the L2 tertiary subjects would be able to apply the superordination rule, the findings show a significant difference for the experimental group only.
- In response to the question of whether the L2 tertiary subjects would be able to provide a controlling idea for summarisation passages, the findings reveal that the experimental group's scores were highly significant when compared to those of the control group.
- In reply to the question of whether the L2 tertiary subjects would benefit from instruction in the use of a summarising technique, the findings indicate a highly significant difference for the experimental group only.
- In response to the question of whether the L2 tertiary subjects would be able to identify the main idea in a listening passage, the findings show a significant difference for both groups. The mean difference for the experimental group (45.00) is however, greater than that of the control group (17.50).

- In reply to the question of whether the L2 tertiary subjects would be able to identify the controlling idea in listening passages, the findings reveal a significant difference for the experimental group only.
- In response to the question of whether the L2 tertiary subjects would benefit from instruction in note-taking for reading, the results indicate that the scores of the experimental group were highly significant when compared to the control group.
- In reply to the question of whether the L2 tertiary subjects would benefit from instruction in identifying the supporting idea during the post-test only, the findings show that the experimental group's mean scores were marginally significant when compared to the control group.

After examining the overall findings, it was established that the reading and listening comprehension problems of L2 tertiary students can be effectively addressed by means of a metacognitive and cognitive intervention programme. The *within-group t-tests for paired data* reveal that both groups achieved significant results. However, on closer examination, it was shown that the experimental group's results were more significant than the control group. There were highly significant differences at the 1% level for the experimental group for hypotheses 1, 3, 5, 6, 7 and 9. In addition, the experimental group obtained significant differences at the 5% level for hypotheses 2, 4 and 8. The control group's results reveal significant differences at the 5% level for hypotheses 1 and 7. There was a marginally significant difference in favour of the experimental group for hypothesis 10.

With respect to the overall hypothesis (H11) the *between group t-test for independent data* shows a very significant difference in favour of the experimental group. The null hypothesis for H11 is thus rejected and the alternative version for the overall hypothesis (H11) is accepted, namely: There is a significant difference in the mean scores that measure the ability to apply metacognitive and cognitive strategies to reading and listening for the main idea, summarising and note-taking by means of dictation in the pre- and post-tests of the experimental and control groups. These results confirm that the experimental group made a greater overall improvement than the control group.

The findings also lend partial support to the interpretation that transfer from one domain (i.e.

reading) to another (i.e. listening) was successful. This is because the null hypotheses were rejected for both H1 (reading for the main idea) and H7 (listening for the main idea). In addition, the findings for H1 indicate a highly significant difference in the pre- and post-test scores of the experimental group, but only a significant difference for the control group. Despite the fact that both groups obtained significant results for H7, the experimental group made a greater improvement.

There are certain issues related to the present study which merit further attention. These include identifying some limitations of the present study, discussing the implications of the findings of this study for L2 teaching and research, and identifying areas for future research.

6.2 THE LIMITATIONS OF THE PRESENT STUDY

Even though the researcher tried to ensure that a rigorous research design was adhered to the following are limitations of the present study:

Good students typically have high levels of metacognitive awareness while 'at risk' students seem to be metacognitively less aware. As stated previously (cf. § 4.1), the students in the present study were 'at-risk' students, and there was a pressing need to help them overcome their difficulties e.g. reading and listening comprehension, summarising and note-taking. They also lacked metacognitive awareness with respect to reading and listening. The intervention programme was designed not simply to teach 'at risk' students about main idea identification and summarisation, but it was also designed specifically to raise their level of metacognitive awareness, so that they could have better control over their reading/learning process. Several researchers advocate an assessment of students' awareness of the type of strategies they employ whilst learning, reading and listening (Schmitt 1990:454; Oxford 1992:179; Oxford 1992/3:19). Ideally, the students' awareness of reading strategies, as well as their level of metacognition and cognition, should have been assessed in pre- and post-tests in the present study. This would have enabled the researcher to see whether the intervention programme not only improved their ability to summarise and identify main ideas but also to see whether it actually raised their level of metacognitive awareness.

With respect to future research, I would recommend that researchers should use either a questionnaire or self-report technique in order to evaluate the metacognitive or cognitive strategies which students use for reading and listening comprehension. Researchers should also find out when and why students use certain strategies (i.e. conditional and procedural metacognitive knowledge). On the basis of information gleaned about studies regarding L2 tertiary students' comprehension difficulties, researchers can set about planning and developing appropriate intervention programmes. Obviously more comprehensive research is needed to examine the nature of the students' reading problems, but that is beyond the scope of this pilot study.

Experience from the pilot study suggests that the intervention period of four weeks was short and should preferably have taken place over a longer period of time. However, the researcher had to work within the constraints of the real world, and researchers have to work in close cooperation with lecturers without disrupting their teaching programmes. Only thirteen units (comprising 2 double and 9 single lessons) were conceded to me before the exams. Nevertheless, despite the short intervention programme, the results suggest that students can benefit from being taught a combination of metacognitive and cognitive strategies for reading and listening comprehension.

Most intervention programmes test results at the end of the programme, when the newly acquired skills are still fresh in the students' minds. Of course, a more stringent test would be to use a delayed post-test, for example, six months after the intervention. This enables the researcher to see whether students actually retain and use the skills they were taught. There are however, very few studies in the field of Applied Linguistics that make use of immediate and delayed post-tests. The researcher suggests that this is an issue that future researchers could bear in mind.

As the pilot study shows, the experiment was not as rigorous as the researcher would have preferred with respect to the control group. The following limitations relate to the treatment of the control group with regard to the following variables:

a) The time spent on the task. Tuckman (1994:133) cautions that "in experiments where

the presence of an experience is to be contrasted with its absence, do not leave uncontrolled the factors of time". Because the experiment had to be fitted into four weeks, the lecturer and researcher could not be with both the experimental and control groups simultaneously. There were no other time slots in which the researcher and lecturer could spend the same amount of time with the control group (e.g. no extra available classrooms, timetable overlaps and the students wanted to spend their extra time studying for the Sociopedagogics exams). To try and control this variable in the present research, the researcher and lecturer first made sure that the students in the control group were properly busy with their studies each time and then the researcher and lecturer attended to the experimental group. It is likely that the learners in the control group did spend an equal amount of time and effort reading and studying their textbook but it is also possible that the students might have wasted their time during this study period. Experience from the pilot study made the researcher aware that this aspect required tighter control, and future researchers working in this domain should be aware of this problem.

b) The Hawthorne effect. The possibility exists that there was a Hawthorne effect with regard to the experimental group, that is, they performed so well because they received 13 extra lessons from the lecturer, with lots of time and attention. This might also have given impetus to the "generalization that states that anything new works ... - at least for a while" (Reber 1985:317). The experimental group might also have thought that the methods used in the intervention programme were special. The following are counter-arguments to the argument that there was a possible Hawthorne effect in the experimental group: It might be argued that both groups were enthusiastic and interested in Sociopedagogics as a subject because it was a new subject, topical and culturally relevant. It can also be argued that because the control group students were reading and studying their Sociopedagogics textbooks in order to prepare for the examinations, they also had an "experience" which took as long as the treatment (i.e. 13 study units consisting of 2 double and 9 single lessons) and provided them with the same amount of exposure to the textbook material (Tuckman 1994:133). However, this is not quite the same as the teacher/peer group/activity based involvement that the students in the experimental group received.

c) The placebo effect. Because the present experiment included the typical two groups, namely, experimental and control, instead of a second control group which was provided

with "irrelevant, unrelated intervention" (Tuckman 1994:172), it was difficult to control for the placebo effect (cf. § 1.2.3). By employing two control groups the likelihood that the experimental group improved because they believed the metacognitive and cognitive intervention programme to have special qualities is reduced.

d) The teacher effect. This variable is problematic when the groups involved in the study have different teachers. In such cases, one cannot be sure that the obtained results are due to differences in the teachers' approach/style/personality or whether they are in fact due to the nature of the intervention programme. The teacher variable does not affect the present study too much. Both groups in the study had the same lecturer. As stated previously (cf. 1.3.4), the researcher took steps to try to provide the control group with some attention, albeit just in a supervisory capacity.

Because the lecturer was also both groups' usual Sociopedagogics lecturer, the possibility exists that the experimental group might have been better motivated because they were participating in the experiment group and tried their best. At the same time, the students in the control group also wanted to achieve in the final examination and they thus exercised self-discipline and studied effectively from their Sociopedagogics textbooks during their 'free' study periods. As a result both groups attained good results in the post-tests. As both groups used similar texts (i.e. their Sociopedagogics textbooks), both groups became familiar with the contents and as a result the performance of the control group also improved slightly in the post-tests.

Due to the short nature of the intervention programme, different pre- and post-tests were set to counter long-term memory effects, but these measures are not as robust and stringent as one would have liked. The researcher's experience from the pilot study suggests that the pre- and post-tests should preferably be a bit longer, and each paragraph should ideally contain more sentences. For instance, each paragraph could have comprised a minimum of at least four or more sentences.

The pilot study also raises questions about the length of pre- and post-tests. For instance, in the present study, main idea identification is only tested twice in each test. This leads one

to pose the question: Do two test items suffice to test skill in main idea identification? I would recommend that when testing for main idea identification, researchers should include at least five items testing that ability, and of those items, at least two should not have the main idea in the initial position. Although moving the sentence containing the main idea into other positions is more unusual in texts and hence more marked, it does help to distinguish between students who can identify main ideas correctly from those who guess that it is to be found in the first sentence simply because it is the preferred position.

In the present study the students underlined the sentence containing the main idea. This is an effective and quick method of testing this skill. Another method is to have a scrambled paragraph of about four sentences, and to ask the students to unscramble them and to put them in logical sequence. This method requires the students to identify the topic sentence and to put it in the initial position. This necessitates carefully selecting paragraphs that lend themselves to an arrangement in a specific way, that is, starting with the topic sentence. Another method is to use a good multiple choice test by for example, providing a paragraph in the test question, but leaving out the topic sentence. The students must then choose, from the given options, the sentence that would be the most appropriate topic sentence for the paragraph. In this way, by using different methods to assess the same skill, a researcher can more confidently obtain an assessment of the students' skills.

With regard to the testing instruments, steps to ensure reliability should have been taken, for example, by using the alternate-form reliability test. This is of particular importance when the instruments are researcher-designed and not standardised. For example, the researcher could have piloted the testing instruments post hoc on a sample group of similar learners (i.e. 'at risk' L2 learners), giving the whole group both tests on the same day, with half writing the pre-test first and the other half writing the post-test first. If it turned out that the two tests were in fact of equal difficulty, the statistical analyses would have been validated. Unfortunately, in the present study the researcher did not have access to a similar group of L2 students. Therefore, the statistical results of the present study should be interpreted with caution.

Another limitation was that a small sample of twenty undergraduate L2 tertiary students is

and listening comprehension and its implications for black L2 students who are being instructed through the medium of English at tertiary institutions in South Africa.

Due to the relatively small sample size of test subjects, the research in the present study represents a pilot sample and the findings cannot therefore be generalized to the entire L2 black tertiary student population in South Africa. However, there could be suggestive patterns that might occur amongst similar groups of L2 black tertiary students whose circumstances are similar to those of the subjects employed in this study. Further research in this area is required, especially with regard to L2 reading and listening comprehension and metacognition.

6.3 THE IMPLICATIONS OF THE FINDINGS

This section will discuss the implication of the findings of this study for future research on teaching L2 students a combination of metacognitive and cognitive strategies for reading and listening comprehension.

6.3.1 General pedagogic implications

The primary aim of this study was to make a contribution towards a better understanding of the effect of teaching a combination of metacognitive and cognitive strategies for reading and listening comprehension. The observations and insights which emerge from this pilot study are suggestive only, but they do point to some interesting L2 teaching implications.

L2 students need to be taught reading/listening and study skills explicitly. This issue is sensitive and has been dealt with rather tentatively at tertiary level (Blacquièrè 1989; Perkins 1991). There are indeed some institutions where no provision is made to address the problems of 'at-risk' students. There is an on-going debate as to who should teach ESL students the academic or study skills pertaining to a specific tertiary level subject. This has implications not only for the English teacher or lecturer but also for the specific subject teacher or lecturer. It is Murray (1993:122) who raises the issue of whether it is the responsibility of the English language teacher or the specific subject teacher (e.g. Sociopedagogics) to teach English for Academic Purposes to L2 students. Murray (1993)

states that academic genres are highly subject-specific and cannot always be understood by readers outside a specific field of specialisation. This implies that the subject teacher/lecturer may need to be qualified as both an English and a specific subject teacher in order to be successful at teaching academic and study skills. Such a situation might be possible in the Education Faculty of a college or university. It was certainly the case in the present study where the subject lecturer teaching Sociopedagogics had also majored in English and taught English at some stage. The problem, however, is that this is not always possible in other lecturing situations where the lecturer has not majored in English. I personally doubt that English teachers in general in this country are well equipped to deal with the problems of L2 students. Practically all English departments in this country focus on literature, rather than language or linguistics. Furthermore, very few of them deal with the theory and practice of L2 learning and teaching. In this country it is typically Applied Linguists rather than English teachers who are best equipped to deal with the problems of L2 learners. Ideally, all L2 English teachers should also have an applied linguistic background. In order to bridge this gap, in-service teacher training is suggested. This is an area that still requires research. In addition to the question of who should teach these students, further research is required to answer questions such as what should be taught to 'at-risk' students and how should it be taught.

6.3.2 The teaching of metacognitive strategies

Research findings have shown that teaching students metacognitive strategies enhances academic learning (Brown 1980; Brown *et al.* 1983; Baker & Brown 1984; Garner 1987; Spires 1990; Fan 1993). Metacognitive strategy training has teaching implications. Teaching students metacognitive strategies implies that aspects of the classroom practice of the teacher/lecturer may have to be reviewed (such as the lesson structure and the lecturer's teaching style). Metacognitive instruction implies a different relationship between the lecturer and students when compared to a traditional learning and teaching situation. Instead of teaching specific content alone, the lecturer has to teach students "how to go about learning" (Chipman & Segal 1985:1). This means that the teacher becomes a facilitator of the learning process and coaches learners. Furthermore, the teacher trains learners to work effectively in groups and teams. Currently problem-solving, outcomes-based pedagogy is being phased into South African schools and universities. Teachers and lecturers have to assist learners to use

knowledge and skills, by providing learning experiences whereby learners are given opportunities to make decisions, solve problems and teach others (Department of Education 1997:29). In contrast to previous teaching approaches which were teacher-centred the outcomes-based approach is learner-centred, the new approach encourages students to become analytical, reflective and creative thinkers, problem solvers and effective communicators (Department of Education 1997:6-7). In contrast, learners in the old approach tended to be inert, passive participants in the learning process with a strong reliance on rote learning.

South African schools are also abuzz with outcomes-based education with its emphasis on developing independent, active learners who can take responsibility for their own learning and self-assessment (Department of Education 1997:7). The term *outcomes* refers to the "results of learning processes, formal, non-formal or informal and refers to knowledge, skills, attitudes and values within particular contexts" (Department of Education 1997:4). It is also important for learners to be able to demonstrate that they "understand and can apply the desired outcomes within a certain context" (Department of Education 1997:4). In other words, the outcomes-based approach stresses the importance of multidimensional assessments of knowledge, abilities, thinking process, metacognition and affect, in contrast to single attribute assessments of isolated knowledge or discrete skills (Department of Education 1997:29). The present study stressed the importance of a combined metacognitive and cognitive learner-centred approach whereby students can become actively involved in their own learning and as a result become independent learners.

When teachers teach metacognitive strategies such as self-regulation of attention, awareness of procedural rules, application of strategies, self-monitoring and evaluation, as well as checking for success, they become facilitators of their students' learning instead of just dispensers of knowledge. Because students are involved in planning, implementing and evaluating their own learning, some teachers might feel that teaching metacognitive strategies undermines their authority. Cognizance should also be taken of the fact that because some lecturers tend to be rigid and believe in a lecture method of instruction, they may find it difficult to break away from teaching in a traditional way in order to teach in an innovative manner. Likewise, inert and passive students may also feel anxious about using a new method of learning as they are used to the teacher/lecturer being in charge of determining

what should be learned and how it should be learned (Nunan 1990). Despite these problems, the present study has shown that metacognitive instruction promotes reflective behaviour amongst students and encourages them to become actively involved in their learning.

Teachers themselves need to be conscientised/sensitised to metacognition and metacognitive training. Further research is required on compulsory in-service training pertaining to metacognition in order to understand the concept and its practical implications.

6.3.3 Deductive versus inductive teaching approaches

Contemporary teaching makes use of both inductive and deductive approaches. In the *inductive approach*, students examine a given example (e.g. students are given a reading text and then have to identify the main idea or write a summary) in order to arrive at general conclusions. After the teacher and students have examined an example, they analyze and reduce the example to establish its essence or rules. In the *deductive approach*, the student is given a general rule (e.g. the rules of the topic sentence and summarisation) or law, and the student then has to apply the rule to several concrete examples.

With respect to summarising, Hare & Borchardt (1984) found that there was no significant difference between a group who received inductive instruction when compared to a group that received deductive instruction. However, both groups performed better than a control group which had received no treatment. In the present study, the L2 students were taught cognitive strategies by means of a deductive approach. The general rules or principles applicable to reading for the main idea and summarisation were taken as the point of departure, explained and applied to examples which served as illustrations. Finally, the L2 students had to work on their own in an independent way and had to apply these rules to different reading comprehension passages.

A disadvantage of using a deductive approach is that the students might simply remember the rule and this might be detrimental to self-discovery (Van der Stoep & Louw 1984:136). On the other hand, the deductive method, in contrast to the inductive approach, has a quicker tempo because insight, already established, is utilised. As the duration of the present

intervention programme was four weeks only, it was concluded that a deductive approach might be a better approach than an inductive approach to use for such a short period of time. An advantage of the deductive approach is that insecure learners find greater security in this approach to teaching. Another advantage of the deductive approach is that the lecturer can combine this approach with metacognitive teaching approaches such as direct explanation, scaffolded instruction, cognitive coaching and co-operative learning (cf. § 3.5 and § 4.2).

6.3.4 The teaching of strategies for reading for the main idea

As established in Chapter 1, South African black tertiary L2 students tend to experience problems with reading comprehension, especially regarding identification of the main idea. To address this problem and to improve students' ability to read for the main idea, these aspects as they refer to the present study will now be discussed and where necessary, areas for future research and teaching will be identified:

Research has revealed that reading and listening comprehension are similar processes (Baker & Brown 1984; Stothard 1994; Pretorius 1996). Anderson, Raisbeck & Smart (1984 in Hidi & Anderson 1986:490) suggest that students should first take note of important points before writing summaries. In the present study, the researcher decided to first teach the L2 students the most likely positions in a reading paragraph where the topic sentence containing the main idea might be found, before applying the rules to summarisation and listening comprehension. The intention was to give the students an opportunity to practise using the rules for locating the main idea and to gain mastery and confidence before proceeding to another area i.e. reading for summarisation and listening comprehension. Another reason for this decision was to give the students an opportunity to re-read the text, whereas the complete text is not always available for scrutiny during a listening task.

The findings of this study show that it is effective to teach students cognitive strategies such as the rules applicable to identifying the main idea. As students have different learning styles and abilities, it is important to investigate the effect of teaching students the skill of concentrating on the main idea in a variety of ways. Research could be undertaken whereby the present research study regarding identifying the topic sentence is replicated and compared

to other methods of main idea instruction, for instance, teaching students to identify the most important fact in a passage. This would entail that students have to discard what is irrelevant or less important (e.g. supporting ideas). In order to teach students how to recognise the central idea in a passage or to practice inferring an implicit main idea, students could be taught how to find titles for passages about one topic and make up their own headlines for newspaper articles (Landman 1987:2) which is similar to an activity in the present study.

6.3.5 The teaching of strategies for reading for summarisation

As stated in Chapter 1, summarising is often not an easy task for L2 students to accomplish. In order to address this problem and to improve the summarisation ability of students, the various aspects of summarisation relating to the present study will now be discussed and, where applicable, areas for future research and teaching will be identified:

Important information in a text. To produce a good summary a student first needs to focus on the topic sentence containing the main idea and provide a title for the reading text (cf. § 1.1.3.2). Various researchers stress the importance of teaching students the rules of summarisation (cf. § 1.1.3.2). The present study stressed the importance of teaching L2 students where to locate the topic sentence containing the main idea before teaching them the other rules applicable to summarisation.

It is proposed that future researchers should first formally assess L2 students' ability to identify the main idea accurately, in order to ascertain whether the students have poor comprehension skills or other discernible reading problems. This information will enable researchers to compare poor readers to good readers with respect to summarisation strategy training. They can then embark on teaching students the rules (e.g. the deletion rule, deleting redundancies and the superordination rule) for summarisation.

The controlling idea: Attending to headings is an area that needs to be explicitly taught. Hidi & Anderson (1986:489) and Stotesbury (1991:37) assert that the title or heading of a text assists students in deciding what information is important in a text. In the present study, headings were not explicitly taught. Instead, the L2 students were requested to supply an

appropriate heading for the two summarisation passages. In this way, they were given an opportunity to practise identifying the controlling idea (which is the central or general idea), and is similar to the main idea in the two summarisation passages. In a sense, this is similar to identifying an implicit main idea. Research has revealed that students find it difficult to identify or invent implicit topic sentences (Brown & Day 1983; Hare & Borchardt 1984:62). It is recommended that beginner summarisers be trained to identify the main idea and also to find a suitable heading pertaining to the passage for summarisation. It is suggested that the difficulty level of the tasks be increased as students master the rules, until they master the art of summarisation.

Replicating the present study but not initially restricting students to writing the heading in a certain number of words, might enable the researcher to ascertain whether the headings supplied by students are more likely to be suitable or not, if not confined to a specific length. The next step could be to make the heading shorter until the desired length is attained.

Length of text: Initially, students should be required to summarise shorter segments of text (cf. Chapter 4) as this is easier to do. Without the constraint of a specified length, they will gain confidence. As time progresses longer summarisation passages may be used.

Knowledge of material: When teaching or researching the teaching of summarisation strategies, use should be made of texts that deal with topics familiar to the students. In the present study, students were given passages from their prescribed textbooks and were thus familiar with the culturally relevant subject matter. Hidi & Anderson (1986:487) also stress the importance of initially using easy passages which are appropriate in terms of readability and familiarity of concepts so that students do not have to spend hours trying to understand the material in order to summarise it. Initially, the summaries need not be perfect with respect to the mechanical aspects of writing such as grammar, word choice, syntax and spelling (Hidi & Anderson 1986:490). Instead, these authors (ibid 1986:490) suggest that early summaries "should be little more than retelling with deletion of the most trivial or redundant aspects of text".

Length of summary: In the present study, the L2 students were able to write the summary in

the suggested number of words. However, as Hidi & Anderson (1986:489) caution, specifying the exact number of words for a summary might place a constraint on the students and cause them to spend more time counting the words than concentrating on summarising. This is something that needs to be borne in mind in teaching programmes. If students are allowed to produce longer summaries, it also reduces possible anxiety and the need for extensive decision making. Students should rather be told that limitations regarding length are approximate.

6.3.6 The teaching of strategies for note-taking

It was stated earlier (cf. § 2.2.4) that L2 students experience problems with listening comprehension and note-taking. In particular, they find it difficult to understand the lecturer's main points. To address this problem and to improve students' abilities to listen for the main and controlling ideas and take notes, these aspects of the present study will now be discussed and, where applicable, areas for future research and teaching will be identified.

The findings of the present study indicate that students can be taught effective listening comprehension strategies including strategies such as paying attention, identifying and becoming aware of the purpose of the listening task (how to identify the main, supporting and controlling ideas), writing down a dictated passage and evaluating and monitoring their own comprehension (cf. Chapter 4). It was felt that students could apply the rules they had learnt for reading for the main idea to listening for the main idea. In the present study, I used dictation exercises as a first step to getting students used to note-taking. However, dictation does not sufficiently approximate oral delivery in a natural lecture situation.

The study also revealed that the students could identify the controlling idea in both the reading and listening comprehension passages. These findings seem to support other findings that reading and listening comprehension are similar processes (Lund 1991; Stothard 1994; Pretorius 1996). The results also show that after the intervention programme students could effectively distinguish between important and less important information. As is the case in reading comprehension, more information is required about the effect of initially reducing the content (i.e. using shorter listening passages) of comprehension passages. The effect of

using familiar, as opposed to unfamiliar, subject matter in the note-taking passages should also be examined.

Lecturers should be made aware of the difficulties the L2 students have in note-taking and make their lectures more student-friendly. Some suggested strategies for doing this are: Initially, lecturers might slow down their oral delivery and use exaggerated intonation during intervention or teaching programmes to enable students to take down effective notes. Lecturers could use advance organisers by telling students what the 'topic of the day' is and how the lecture will be structured. Lecturers could also give students advance warning of important points coming up by providing students with cues such as pointer words e.g. "an important point is..", or stressing the importance of concentrating on a lecturer's introductory statements. In addition, lecturers might repeat important points or make explicit use of text organisers (e.g. firstly, secondly). Alternatively, students could listen to a comprehension passage and then be requested to do one of the following activities: write down a suitable title, write down the topic sentence or main idea in their own words, or write a brief summary in their own words.

6.4 CONCLUSION

Although the present study leaves some questions unanswered, it could be regarded as having made some contribution to determining the effect of teaching L2 black tertiary students a combination of metacognitive and cognitive strategies for reading and listening comprehension. There is an urgent need for explicitly instructing students in adopting reading and listening strategies that will enable them to participate more actively in the academic discourse community. There is also plenty of scope for further investigation into the various aspects of research dealt with in the present study and the implications that flow from them.

In conclusion, metacognitive and cognitive strategy training makes learning both meaningful and personally relevant to L2 students. Moreover, when students gain greater awareness about their own mental processes and the purposes of academic learning, they tend to make better cognitive judgements, have positive beliefs about learning and are motivated to learn (Paris & Winograd 1990). Furthermore, combined metacognitive and cognitive strategy

training encourages students to become active and reflective thinkers and to take responsibility for their own learning as opposed to being inert, passive, impulsive learners who are reliant on rote learning techniques.

APPENDIX A

PRE-TEST FOR READING FOR THE MAIN IDEA AND SUMMARISATION

NAME: STUDENT NUMBER.....
 DATE OF BIRTH: SEX: MALE OR FEMALE
 HOME LANGUAGE:

1. Read the following 2 paragraphs carefully.
2. Choose the sentences containing the main ideas in the two paragraphs on which the summary is to be based by underlining them and then writing them out in the space provided below.
3. Write a summary of 77-80 words in the space provided below bearing in mind that you must use full sentences and that the sentences must make sense.
4. Supply a suitable title or main heading (i.e. controlling idea) of not more than 5 words for both paragraphs in the space provided below.

Education is embedded in and influenced by social factors in a social environment. Education cannot be isolated from societal influences. The upbringing of the child as it occurs in the contemporary family and school, is enacted against a social background. There is ongoing interaction between the educational environment and society. The child is educated for acceptance in society on the basis of the values, norms and skills that children acquire. Certain aspects of society could have a positive or negative influence on the African child's upbringing and development.

There are, in South African society, anti-child factors and sentiments that hinder the African child's development. These include disintegration of family life, overcrowding, under-nourishment, political repression and political violence. These factors complicate the role of educators in contemporary society. At present educators, parents and the community are confronted with the task of educating African children in such a way that they will be able to realize a meaningful coexistence in a new South Africa.

1. WRITE YOUR SUMMARY BELOW:

.....

2. What is the main idea or topic of paragraph 1?

3. What is the main idea or topic of paragraph 2?

4. Provide a suitable title or heading of not more than 5 words for these passages.

**APPENDIX B
MEMORANDUM**

PRE-TEST FOR READING FOR THE MAIN IDEA AND SUMMARISATION

1. Read the following 2 paragraphs carefully.
2. Choose the sentences containing the main ideas in the two paragraphs on which the summary is to be based by underlining them and then writing them out in the space provided below.
3. Write a summary of 77-80 words in the space provided below bearing in mind that you must use full sentences and that the sentences must make sense.
4. Supply a suitable title or main heading (i.e. controlling idea) of not more than 5 words for both paragraphs in the space provided below.

Education is embedded in and influenced by social factors in a social environment. Education cannot be isolated from societal influences. The upbringing of the child as it occurs in the contemporary family and school, is enacted against a social background. **There is ongoing interaction between the educational environment and society.** The child is educated for acceptance in society on the basis of the values, norms and skills that children acquire. Certain aspects of society could have a *positive* or *negative* influence on the African child's upbringing and development.

There are, in South African society, anti-child factors and sentiments that hinder the African child's development. *These include disintegration of family life, overcrowding, under-nourishment, political repression and political violence.* These factors complicate the role of educators in contemporary society. At present educators, parents and the community are confronted with the task of educating African children in such a way that they will be able to realize a meaningful coexistence in a new South Africa.

- 1 Write your summary below. (5 marks¹)

.....
Paragraph 1: Sentence 2 can be deleted. The words *positive* or *negative* can also be deleted.

Paragraph 2: The following descriptions and examples of anti-child factors: *disintegration of family life, overcrowding, undernourishment, political repression and political violence.*

Paragraphs 1 and 2: Using the word *milieu* or *environment* for "family and the school".

Other example "*interaction between these environments*" for **There is ongoing interaction between the educational environment and society.** Using the word *people* or *society* to substitute for "educators, parents and community".

2. **What is the main idea or topic sentence in paragraph 1?** (2 marks)
Education is embedded in and influenced by social factors in a social environment (2 marks).
If topic sentence is not underlined or written out in full give 1 mark for supplying a suitable main idea.
3. **What is the main idea or topic sentence of paragraph 2?** (2 marks)
There are, in South African society, anti-child factors and sentiments that hinder the African child's development (2 marks). If topic sentence is not underlined or written out in full give 1 mark for supplying a suitable main idea.
4. **Provide a suitable title or heading of not more than 5 words for both passages.** (2 marks)
E.g. Education in African society; Role of education in SA; Interaction between Education and Society; Education in SA; Education has a major role in Society; Social factors influence [African] Education; Socio-educational relationship

TOTAL : 11 Marks

¹ Mark allocation: 1 mark for not exceeding the required length, 3 marks for applying the deletion rule, 1 mark for applying the superordination rule.

APPENDIX C

PRE-TEST FOR READING FOR THE MAIN IDEA AND SUMMARISATION
AN EXAMPLE OF A STUDENT IN THE EXPERIMENTAL GROUP'S ANSWER

1. WRITE YOUR SUMMARY BELOW:

Social factors influence education and are part and parcel of education. The child is brought up at school and at home. The child's education is shaped by social factors in the sense that the child is educated about values, norms and skills which are accepted in the society. In order for the child to be accepted as a human being in the society, he must be educated. There are certain aspects which have (negative and positive) influence on the development and upbringing of the African child.

Del = 1

Del = 0

The development of the African child is hindered by social factors and conditions such as disintegration of family life, overcrowding, under-nutrition, political repression and political violence. These factors make the role of educator in educating the child to be complicated. In this contemporary society, the community should stand up with the educators and try by all means to educate their African children to be able to make a meaningful contribution to this new dispensation.

No. of words = 160
Length = 0

No superordination rule applied = 0

Del = 0

2. What is the main idea or topic of paragraph 1?

Education is here to socialize children to live well with other people and be accepted in the community.

✓ 1

3. What is the main idea or topic of paragraph 2?

Because of the last apartheid regime the African child were left behind in regard to education.

X 0

4. Provide a suitable title or heading of not more than 5 words for these passages.

The African child in educational crisis

X Too long!
Ap = 0
L = 0 } = 0

APPENDIX D

PRE-TEST FOR READING FOR THE MAIN IDEA AND SUMMARISATION
AN EXAMPLE OF A STUDENT IN THE CONTROL GROUP'S ANSWER

1. WRITE YOUR SUMMARY BELOW:

Social factors play important role in edu-
cation and social environment. The upbringing
of the child in the contemporary family
and school, is affected against social backgra-
nd. Interaction between the (educational)
environmental and (society). The child is
educated for acceptance in society of the
values, norms and skills. Disintegration of family
life (overriding). Educators, parents and
the community are concerned.

Del = 1

Del = 1

No. of words
59

Length = 0

Del = 0

No superordination rule = 0
applied

2. What is the main idea or topic of paragraph 1?
Relationship between the education
and society. ✓

①

3. What is the main idea or topic of paragraph 2?
disintegration of family life. ✓

0

4. Provide a suitable title or heading of not more than 5
words for these passages.
Education is the vital role^x (of what?) = 0

Ap = 0
L = 0

APPENDIX E
LECTURER'S COPY OF PRE-TEST FOR LISTENING FOR THE MAIN AND
CONTROLLING IDEAS

1. Listen carefully to the following passage whilst you write down the information.
2. After you have written down the passage, underline the topic or main sentence.
3. Then answer the questions on the typed sheet pertaining to the topic sentence or main idea.
4. Supply a suitable title or main heading (i.e. controlling idea) of not more than 5 words for both paragraphs.

Teenagers appear to be experiencing more problems in their lives as a result of inadequate parental support in the process of growing up. The teenager craves parental involvement. However, modern parents often appear to show insufficient interest and involvement in the upbringing of their children.

Rebellion against parents and the community is one of the main reasons for the use and abuse of alcohol among teenagers. The teenager realizes that his behaviour will evoke indignation from his parents and the community. As a result he experiences a temporary feeling of independence and power.

2. NOW ANSWER THE FOLLOWING QUESTIONS FROM YOUR NOTES.

2.1 What is the main idea in paragraph 1?

.....

2.2 What is the main idea in paragraph 2?

.....

2.3 Provide a suitable title or main heading of not more than 5 words for both paragraphs.

.....

**APPENDIX F
MEMORANDUM**

PRE-TEST FOR LISTENING FOR THE MAIN AND CONTROLLING IDEAS

- 1.1 Listen carefully to the following passage whilst you write down the information.
- 1.2 After you have written down the passage, underline the topic or main sentence.
- 1.3 Then answer the questions on the typed sheet pertaining to the topic sentence or main idea.
- 1.4 Supply a suitable title or main heading (i.e. controlling idea) of not more than 5 words for both paragraphs.

Teenagers appear to be experiencing more problems in their lives as a result of inadequate parental support in the process of growing up. The teenager craves parental involvement. However, modern parents often appear to show insufficient interest and involvement in the upbringing of their children.

Rebellion against parents and the community is one of the main reasons for the use and abuse of alcohol among teenagers. The teenager realizes that his behaviour will evoke indignation from his parents and the community. As a result he experiences a temporary feeling of independence and power.

2. NOW ANSWER THE FOLLOWING QUESTIONS FROM YOUR NOTES.

- 2.1 **What is the main idea or topic sentence in paragraph 1? (2 marks)**
Teenagers appear to be experiencing more problems in their lives as a result of inadequate parental support in the process of growing up (2 marks). If topic sentence is not underlined or written out in full give 1 mark for supplying a suitable main idea.
- 2.2 **What is the main idea or topic sentence in paragraph 2? (2 marks)**
Rebellion against parents and the community is one of the main reasons for the use and abuse of alcohol among teenagers (2 marks). If topic sentence is not underlined or written out in full give 1 mark for supplying a suitable main idea.
- 2.3 **Provide a suitable title or main heading of not more than 5 words for both paragraphs. (2 marks)**
E.g. The problems of teenagers; Teenage rebellion; Relationship between rebellion and alcohol; Negative parent/child relationships; Inadequate upbringing of the child; Rebellion and alcohol abuse; Children out of control; Juvenile delinquency; Inadequate child development.

TOTAL : 6 Marks

APPENDIX G

PRE-TEST FOR LISTENING FOR THE MAIN AND CONTROLLING IDEAS
AN EXAMPLE OF A STUDENT IN THE EXPERIMENTAL GROUP'S ANSWER

Teenagers appear to be experiencing more problems in their lives... as a result of inadequate parental support in the process of growing up. The teenagers' lives... parental involvement, however, most can parents often appear to show insufficient interest... as a result of rebellion in the upbringing of their children, rebellion against parents and the community is one of the main reasons for the use and abuse of alcohol among teenagers. The teenager realizes that his behaviour will evoke indignation from his parents and the community. As a result, he experiences a temporary feeling of independence power.

2. NOW ANSWER THE FOLLOWING QUESTIONS FROM YOUR NOTES.

2.1 What is the main idea in paragraph 1?

The problem which the teenagers experience in their daily life. **ME** ✓ = 0

2.2 What is the main idea in paragraph 2?

The teenagers always rebel against the parents as a result of alcohol, etc. **ME** ✓ = 0

2.3 Provide a suitable title or main heading of not more than 5 words for both paragraphs.

The behavioural between teenagers and parents: X

L = 0
A = 0 } = 0

APPENDIX H
PRE-TEST FOR LISTENING FOR THE MAIN AND CONTROLLING IDEAS
AN EXAMPLE OF A STUDENT IN THE CONTROL GROUP'S ANSWER

Teenagers appear to be experiencing more problems in the lives, as a result inadequate parental support in the process of growing up. The teenager craves parental. However, modern parents often appear to show insufficient interest and involvement in the upbringing of their children. Rebellion against parents and in the community is now the main reason for the USA and abuse of alcohol among behaviour teenager. The teenager will be used in degeneration from his parents and their community.

2. NOW ANSWER THE FOLLOWING QUESTIONS FROM YOUR NOTES.

2.1 What is the main idea in paragraph 1?

Problems of teenagers in the lives. ✓ 0

2.2 What is the main idea in paragraph 2?

The environment in their children. X = 0

2.3 Provide a suitable title or main heading of not more than 5 words for both paragraphs. of

The problems about teenager. ✓

L = 1 } = 2
 A = 1 }

**APPENDIX J
MEMORANDUM**

POST-TEST FOR READING FOR THE MAIN IDEA AND SUMMARISATION

1. Read the following 2 paragraphs carefully.
2. Choose the sentences containing the main ideas in the two paragraphs on which the summary is to be based by underlining them and then writing them out in the space provided below.
3. Write a summary of 50 words or fewer in the space provided below bearing in mind that you must use full sentences and that the sentences must make sense.
4. Supply a suitable title or main heading (i.e. controlling idea) of not more than 5 words for both paragraphs in the space provided below.

Family education is a subdiscipline of Pedagogics. Family Education together with other subdisciplines *such as Fundamental Pedagogics, Didactical Pedagogics, Psychopedagogics, Historical Pedagogics and Orthopedagogics*, each deals with the same phenomenon, namely child rearing/education from a different perspective.

Family education is the science that studies the process of rearing or education of the child in terms of his social life. The child's upbringing, development and socialization are actualized within the community which includes *the family, neighbourhood, friends, relatives, school, church and his peer group*. This enables the child to cope with intimate and formal social relationships and social situations. Family Education thus studies child rearing/education from a social perspective.

1. **What is the main idea or topic sentence of paragraph 1? (2 marks)**
Family education is a subdiscipline of Pedagogics (2 marks). If topic sentence is not underlined or written out in full give 1 mark for supplying a suitable main idea.
2. **What is the main idea or topic sentence of paragraph 2? (2 marks)**
Family education is the science that studies the process of rearing or education of the child in terms of his social life; and
Family Education thus studies child rearing/education from a social perspective (Give 2 marks for both sentences). Give 1 mark if either first or last sentence is supplied or 1 mark for supplying a suitable main idea.
3. **Provide a suitable title or heading of not more than 5 words for both passages. (2 marks)**
E.g. Family education; Sociopedagogics; The importance of family education; The importance of Sociopedagogics; Family education is a science.
4. **Write your summary below. (5 marks²)**

.....
Examples in paragraph 1: Delete examples of subdisciplines "*such as Fundamental Pedagogics, Didactical Pedagogics, Psychopedagogics, Historical Pedagogics and Orthopedagogics*".

Examples in paragraph 2: Delete *the family, neighbourhood, friends, relatives, school, church and his peer group and intimate and formal*.

Superordination rule in paragraph 2. Use the word *community* for "**family ... peer group**", *many relationships* instead of "**... intimate and formal social relations and social relationships**" or use the phrase *relationships and situations* instead of "**... intimate and formal social relationships and social relationships**".

TOTAL : 11 Marks

² Mark allocation: 1 mark for not exceeding the required length, 3 marks for applying the deletion rule, 1 mark for applying the superordination rule.

APPENDIX K

POST-TEST FOR READING FOR THE MAIN IDEA AND SUMMARISATION
AN EXAMPLE OF A STUDENT IN THE EXPERIMENTAL GROUP'S ANSWER

1. What is the main idea or topic sentence of paragraph 1?

Family education is a subdiscipline of pedagogy.

MI+TS

= 2

2. What is the main idea or topic sentence of paragraph 2?

Family education is the science that studies the process of child rearing or education of the child from a social perspective.

MI+TS

= 2

3. Provide a suitable title or heading of not more than 5 words for both passages.

Family education

= 2

4. WRITE YOUR SUMMARY BELOW:

Family education is a subdiscipline of pedagogy, together with other subdisciplines, each deals the same phenomenon of child rearing from a different perspective.

Del = 1

It is the science that studies child rearing process from a social perspective. The child's upbringing's concepts are actualised within the community through socialisation agents. This enables the child to cope with intimate and formal relationship and situation.

Del = 1

Del = 0

Superordination
rule applied = 1

No. of words = 61
Length = 0

APPENDIX L

POST-TEST FOR READING FOR THE MAIN IDEA AND SUMMARISATION
AN EXAMPLE OF A STUDENT IN THE EXPERIMENTAL GROUP'S ANSWER

1. What is the main idea or topic sentence of paragraph 1? ✓ = 1
 Family education is a sub-discipline of Pedagogics such as Fundamental Pedagogics, Didactical Pedagogics, Psychopedagogics, Historical Pedagogics & Orthopedagogics. Supporting ideas
2. What is the main idea or topic sentence of paragraph 2? ✓ = 1
 Family education is the science that studies the process of rearing of the child in terms of his social life.
3. Provide a suitable title or heading of not more than 5 words for both passages. X = 0
 Family education is the science.
4. WRITE YOUR SUMMARY BELOW:
 Family education is a sub-discipline of Pedagogics that are (Fundamental Pedagogics, Didactical Pedagogics, Psychopedagogics, Historical Pedagogics & Orthopedagogics). Family education is the science that studies the child rearing of his social life. The child's upbringing, development & socialization are actualized includes the family & his peer group. Family education studies child rearing from social perspective.
 Del = 0
 Del = 0
 Del = 1
 No superordination = 0
 Length = 0
 No. of words = 54 word.

APPENDIX M

LECTURER'S COPY OF POST-TEST FOR LISTENING FOR THE MAIN AND CONTROLLING IDEAS

- 1.1 Listen carefully to the following passage whilst you write down the information.
- 1.2 After you have written down the passage, underline the topic or main sentence.
- 1.3 Then answer the questions on the typed sheet pertaining to the topic sentence or main idea.
- 1.4 Supply two supporting ideas.
- 1.5 Supply a suitable title or main heading (i.e. controlling idea) of not more than 5 words for both paragraphs.

Education cannot be adequately realized in an anti-child environment. In an anti-child educational situation the African child finds himself in an educational emergency situation. The African child in particular, experiences childhood as being traumatic. Negative social, economic and political influences undermine the quality of both the family life and the family education of the modern South African family. Being a street child is the African child's effort to escape from his immediate negative conditions.

The street child needs to lead a life of dignity with equal opportunities so he can develop optimally. It is thus necessary that attention be devoted to intervention programmes, community involvement and educational reforms which promote a safe educational milieu for every African child in South Africa.

2. NOW ANSWER THE FOLLOWING QUESTIONS FROM YOUR NOTES.

- 2.1 What is the main idea or topic sentence in paragraph 1?
.....
.....
- 2.2 What is the supporting idea in paragraph 1?
.....
.....
- 2.3 What is the main idea or topic sentence in paragraph 2?
.....
.....
- 2.4 What is the supporting idea in paragraph 2?
.....
.....
- 2.5 Provide a suitable title or main heading of not more than
5 words for both paragraphs.
.....

APPENDIX N
MEMORANDUM
POST-TEST FOR LISTENING FOR THE MAIN AND CONTROLLING IDEAS

- 1.1 Listen carefully to the following passage whilst you write down the information.
- 1.2 After you have written down the passage, underline the topic or main sentence.
- 1.3 Then answer the questions on the typed sheet pertaining to the topic sentence or main idea.
- 1.4 Supply two supporting ideas.
- 1.5 Supply a suitable title or main heading (i.e. controlling idea) of not more than 5 words for both paragraphs.

Education cannot be adequately realized in an anti-child environment. In an anti-child educational situation the African child finds himself in an educational emergency situation. The African child in particular, experiences childhood as being traumatic. Negative social, economic and political influences undermine the quality of both the family life and the family education of the modern South African family. Being a street child is the African child's effort to escape from his immediate negative conditions.

The street child needs to lead a life of dignity with equal opportunities so he can develop optimally. It is thus necessary that attention be devoted to intervention programmes, community involvement and educational reforms which promote a safe educational milieu for every African child in South Africa.

2. NOW ANSWER THE FOLLOWING QUESTIONS FROM YOUR NOTES.

- 2.1 **What is the main idea or topic sentence in paragraph 1? (2 marks)**
Education cannot be adequately realized in an anti-child environment (2 marks). If topic sentence is not underlined or written out in full give 1 mark for supplying a suitable main idea.
- 2.2 **What is the main idea or topic sentence in paragraph 2? (2 marks)**
It is thus necessary that attention be devoted to intervention programmes, community involvement and educational reforms which promote a safe educational milieu for every African child in South Africa. If topic sentence is not underlined or written out in full give 1 mark for supplying a suitable main idea.
- 2.3 **What is the supporting idea in paragraph 1? (1 mark)**
Negative social, economic and political influences... SA family or African child finds himself in an educational emergency situation; The African child in particular, experiences childhood as being traumatic
- 2.4 **What is the supporting idea in paragraph 2? (1 mark)**
The street child/he needs to lead a life of dignity with equal opportunities so he can develop optimally.
- 2.5 **Provide a suitable title or main heading of not more than 5 words for both paragraphs. (2 marks)**
E.g. An anti-child environment; Anti-child culture; Anti-child cultural milieu; Educational situation in South Africa; The anti-child culture phenomena; African street child phenomenon; An anti-child education situation; African child educational situation.

TOTAL : 8 Marks

APPENDIX O

POST-TEST FOR LISTENING FOR THE MAIN AND CONTROLLING IDEAS
AN EXAMPLE OF A STUDENT IN THE EXPERIMENTAL GROUP'S ANSWER

Education can not be adequately realized in an anti child environment. In an antithetical educational situation the African child himself in an educational emergency situation. The African child in particular experience childhood as being traumatic. Negative social, economic and political influences undermine the quality of both the family life and the family education of the modern youth African family.

Being a street child is African child's effort to escape from his immediate negative conditions. The street child needs to live a life of dignity with equal opportunities so he can develop optimally. His best bet is that attend to be devoted to attention development programs. Community involvement and educational programs which save educational skills for every African child in South Africa.

2. NOW ANSWER THE FOLLOWING QUESTIONS FROM YOUR NOTES.

2.1 What is the main idea or topic sentence in paragraph 1?

Education can not be adequately realized in an anti child environment. ✓ = 2

MI+TS

2.2 What is the supporting idea in paragraph 1?

Negative social, economic and political influences undermine the quality of both the family life and the family education of the modern youth African family. ✓ = 1

2.3 What is the main idea or topic sentence in paragraph 2?

Being a street child is African child's effort to escape from his immediate negative conditions. ✗ = 0

2.4 What is the supporting idea in paragraph 2?

The street child need to live life of dignity with equal opportunities so that he can develop optimally. ✓ = 1

2.5 Provide a suitable title or main heading of not more than 5 words for both paragraphs.

Anti-child Cultural Policy. ✓
L = 1 } = 2
A = 1 }

APPENDIX P
POST-TEST FOR LISTENING FOR THE MAIN AND CONTROLLING IDEAS
AN EXAMPLE OF A STUDENT IN THE CONTROL GROUP'S ANSWER

Education cannot be adequately realized in an anti-child educational situation. The African child find himself in an educational emergency situation. The African child in particular experiences childhood has been traumatic. Negative socio economic and political influences under mind equality of both the family life of the modern South African family. Being a street child is the African child effort to escape from immediate negative conditions the street need to leave a life of dignity with equal opportunities so he can develop optimally. It is thus necessary that attention devoted to intervention programme, community involvement and educational reforms which promote a safe education Milieu for every African child in South Africa.

2. NOW ANSWER THE FOLLOWING QUESTIONS FROM YOUR NOTES.

2.1 What is the main idea or topic sentence in paragraph 1? **MI + TS**

Education cannot be adequately realized in an anti-child educational situation. **✓ = 2**

2.2 What is the supporting idea in paragraph 1?

~~In an anti-child educational situation the African child find himself in an educational emergency situation.~~ **✓ = 1**
 The African child in particular experiences childhood has been traumatic.

2.3 What is the main idea or topic sentence in paragraph 2?

Being a street child is the African child effort to escape from immediate negative conditions. **x = 0**

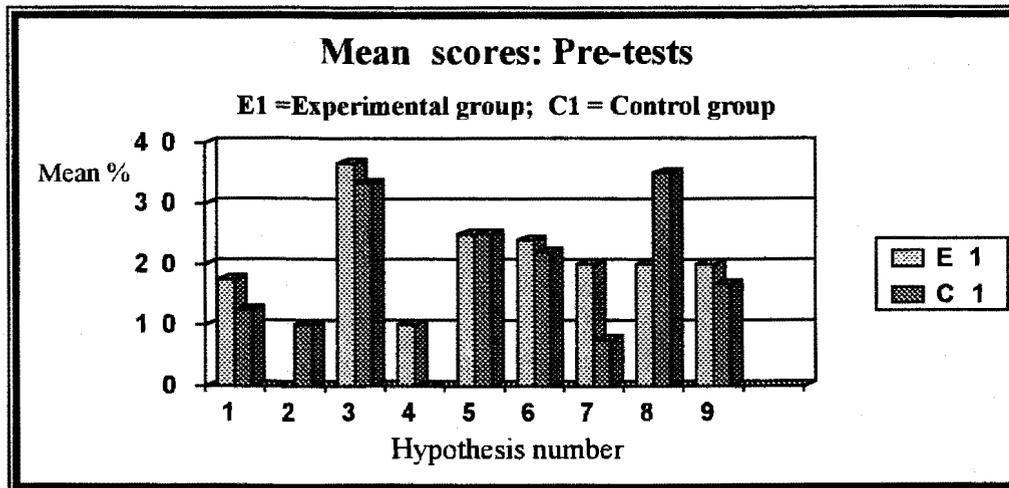
2.4 What is the supporting idea in paragraph 2?

Educational reforms which promote a safe education Milieu for every African child in South Africa. **x = 0**

2.5 Provide a suitable title or main heading of not more than 5 words for both paragraphs.

An anti-child educational situation. **✓** **L = 1**
A = 1 } **= 2**

APPENDIX Q
A COMPARISON BETWEEN THE PRE-TEST MEAN SCORES OF THE
EXPERIMENTAL AND CONTROL GROUP



The above bar graph is included for interest sake. It shows that the average (mean) pre-test scores of the experimental group were higher in all cases except for hypotheses 2 and 8 where the control group obtained a higher scores.

APPENDIX R
THE PRE- AND POST-TEST MEAN SCORES OF THE EXPERIMENTAL
AND CONTROL GROUP "BETWEEN GROUP" STATISTICS

Hypothesis	Group	Mean	N	Std Deviation	Std Error Mean
Hypothesis 1	E2	85.0000	10	17.4801	5.5277
	E1	17.5000	10	16.8737	5.3359
Hypothesis 1	C2	45.0000	10	28.3823	8.9753
	C1	12.5000	10	13.1762	4.1667
Hypothesis 2	E2	50.0000	10	52.7046	16.6667
	E1	.0000	10	.0000	.0000
Hypothesis 2	C2	.0000	10	.0000	.0000
	C1	10.0000	10	31.6228	10.0000
Hypothesis 3	E2	80.0020	10	17.2115	5.4428
	E1	36.6640	10	10.5430	3.3340
Hypothesis 3	C2	46.6670	10	23.3093	7.3710
	C1	33.3330	10	27.2179	8.6071
Hypothesis 4	E2	60.0000	10	51.6398	16.3299
	E1	10.0000	10	31.6228	10.0000
Hypothesis 4	C2	10.0000	10	31.6228	10.0000
	C1	.0000	10	.0000	.0000
Hypothesis 5	E2	100.0000	10	.0000	.0000
	E1	25.0000	10	42.4918	13.4371
Hypothesis 5	C2	50.0000	10	52.7046	16.6667
	C1	25.0000	10	42.4918	13.4371
Hypothesis 6	E2	70.0000	10	25.3859	8.0277
	E1	24.0000	10	8.4327	2.6667
Hypothesis 6	C2	30.0000	10	16.9967	5.3748
	C1	22.0000	10	17.5119	5.5377
Hypothesis 7	E2	65.0000	10	21.0819	6.6667
	E1	20.0000	10	19.7203	6.2361
Hypothesis 7	C2	25.0000	10	23.5702	7.4536
	C1	7.5000	10	12.0761	3.8188

APPENDIX R (CONTINUED)
THE PRE- AND POST-TEST MEAN SCORES OF THE EXPERIMENTAL
AND CONTROL GROUP "BETWEEN GROUP" STATISTICS

Hypothesis	Group	Mean	N	Std Deviation	Std Error Mean
Hypothesis 8	E2	80.0000	10	42.1637	13.3333
	E1	20.0000	10	42.1637	13.3333
Hypothesis 8	C2	50.0000	10	52.7046	16.6667
	C1	35.0000	10	47.4342	15.0000
Hypothesis 9	E2	70.0010	10	20.4880	6.4789
	E1	20.0010	10	23.3072	7.3704
Hypothesis 9	C2	33.3340	10	26.0588	8.2405
	C1	16.6670	10	20.7867	6.5733

E1 = Experimental group pre-test; E2 = Experimental group post-test; C1 = Control group pre-test and C2 = Control group post-test
Please note Hypothesis 10 has no pre-test.

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